

# THE MODERN HOSPITAL

*A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services*

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## A NAVY BASE HOSPITAL OVERSEAS

### U. S. Navy Base Hospital No. 4 Composed of Portable Buildings Shipped From America—How Practical Difficulties in Situation and Water Supply Were Met—Rapid Construction Due to “Win-the-War” Spirit of Enlisted Men

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THIS hospital is, so far as we can determine, the only United States naval base hospital overseas built of portable buildings shipped from America. At other bases, buildings already erected have been used and have needed only to be altered and equipped to meet the requirements of a hospital. This hospital, in its erection and equipment, has brought up many new problems, which were interesting because there was no precedent to follow and because the national customs of work and equipment are so different from those at home. These national customs were found to be exceedingly important because the necessity for rapid construction and early commissioning limited us to equipment which was already manufactured and available in the local market. This refers especially to the lighting, heating, and plumbing fixtures and power house equipment.

In its original conception, a naval base hospital was a mobile unit of 250 beds with all equipment needed for general hospital work. The units were to be used singly, or any number of units combined, as required. It was soon found, however, that the size and weight of the buildings and furniture were so great as to make mobility im-

practicable, and conditions at naval bases were such that mobility was not essential. The custom in the land in which this hospital is located is to build for all eternity, and nothing could be less mobile than the massive construction of the drains, plumbing, and all fittings of native production. It is, therefore, a permanent institution, and negotiations are already under way to turn it over to the government of this country when we go home.

The work of construction was under the direction of Capt. D. N. Carpenter, Medical Corps, U. S. N., whose orders were to construct the hospital and to command it when completed. Payment was on the cost - plus - percentage

basis. The work of unloading the hulments and furnishings from the ship began on May 24, and the hospital was opened to receive patients on October 11.

About eleven acres of an old estate known as “White Point” are occupied by the hospital. Numerous trees on the grounds add to the attractiveness of the spot and afford shelter from the gales. Their scattered positions governed the location of the buildings and it was found possible to complete the work without sacrificing a single tree.



Fig. 1. View of U. S. Navy Base Hospital No. 4 from the harbor.

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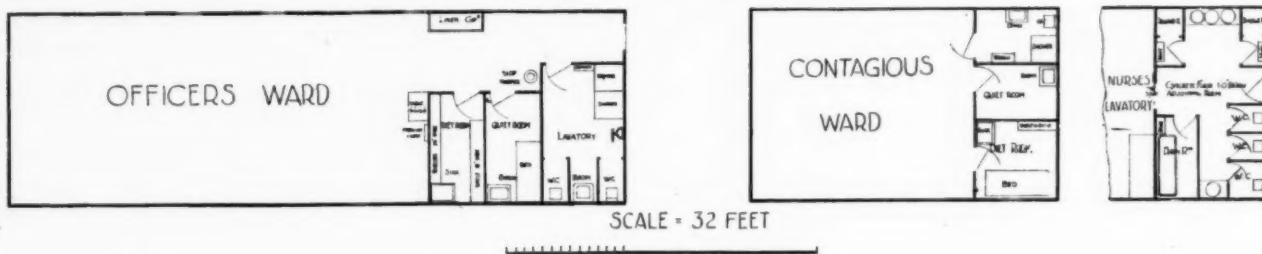


Fig. 2. Officers' ward and contagious ward.

The ground is rolling and slopes down to the harbor from the old house, around which the new buildings are distributed.

The huts are of the portable type and were shipped from the United States in fifty units, each unit being a complete building 20 by 32 feet. There were panels for side walls, floors, and roofs; also panels containing doors and windows. These panels, together with the necessary stringers and other beams, were made up for shipping in bundles which occupied as little space as possible. Floor and wall panels are of double thickness with air space and building paper between. The buildings are of very light structure but have been found strong enough to withstand the heavy storms to which they are frequently subjected. By placing two or more of the 32-foot units together, buildings of various lengths were obtained to fit our needs. Thus four units produce a building 128 by 20 feet, which is the size used for the main wards, general mess hall and hospital corps barracks.

Six main wards (128 by 20 feet) are located in an east-and-west line in two rows of three each, practically in the center of the site, with the operating pavilion on a north-and-south line directly east of this group of wards. The general mess hall, the hospital corps mess hall, and the officers' ward are so placed along the line of wards that runways coming from them lead to the doors at the ends of the wards. The elevations of the various buildings were adjusted so as to eliminate as far as possible any steep slopes in the connecting runways. These elevations were complicated by the rolling character of the ground, by the hard rock which came close to the surface at the high points, and by the excessive cost of lumber for the foundation posts, all these factors combining to make the adjustment of elevations important and difficult. Thus, in building the runway from the general mess hall to the four wards below it, five different elevations had to be connected, the mess hall being 13 feet above the lower wards. Instead of making the slope uniform, sloping steps were introduced at intervals so that two of the wheels of a stretcher would always be on a slope of only slight inclination.

## THE MAIN WARDS

These are uniform in size, arrangement, and equipment. One of these wards holds forty beds without crowding, and the quiet room provides one more bed for a special case. At one end of the ward is the toilet with two water closets, two wash basins, urinal, and two shower baths. The showers have a concrete curbing and a flooring of an impervious substance laid on like cement. The curtains are of rubber sheeting, made by our hospital tailor, and hung on rods of gas piping. At the side of the showers is a small space (3 by 3 feet) where a man may stand to dry himself; this space is floored with the same impervious substance and fitted with a wooden grating. Beside this is a bench with grating in front and a shelf with hooks overhead for convenience in dressing. A wooden screen projecting out from the side wall protects those using the toilets from view when the door is opened. On the back of this screen is a shelf on which bed pans and urinals are placed, and in the corner formed by the screen and wall is kept the large laundry bag, supported by hooks in the walls. Next to the toilet is a quiet room large enough for one bed and with running water. The walls of the toilet and quiet room are lined with tar paper and filled with sawdust to make them sound proof. Next to the quiet room is a small diet kitchen with sink and hot and cold water. Alcohol stoves and burners vaporizing the alcohol under pressure are used in cooking. There is also a built-in linen closet with slats for shelves so that the heat from the pipes below may keep the linen dry, a necessity in this cold, damp climate and known locally as a "hot press." Against the wall of the diet kitchen is the nurse's writing table with the telephone, medicine closet, and switches to control the lighting of the ward. The buildings are heated by steam and have for radiators 6-inch cast-iron pipes, which run the length of the ward close to the floor on each side. The floors are covered with a good quality of dark brown linoleum which extends to within a foot of the walls. This serves to keep out the wind and is necessary because the shrinkage of the floor panels has left wide cracks between the floor boards. At the

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Fig. 3. Block plan of the U. S. Naval Base Hospital No. 4. This plan shows the hospital buildings as they stood at the time of the cessation of hostilities and the plans under way at the time for future extension.

1. Lodge.
2. Site for barracks.
3. 4-inch water main.
4. Athletic field.
5. Road 20 feet wide.
6. Water tank and dairy.
7. Store, barn, and workshop.
8. Garage with pigeon to left and machine shop and petrol station.
9. Garden.
10. Nurses' home (shaded portion) with area and conservatory.
11. Nurses' annex (32 by 20 feet) and future extension of nurses' home (dotted lines).
12. Road 12 feet wide.
13. Lodge.
14. Administration building (96 by 20 feet) with morgue and Red Cross building to the right.
15. Chapel, 40 by 20 feet.
16. Y. M. C. A. hut, 100 by 40 feet.
17. Power house, 32 by 32 feet.
18. Pump house for salt water flush.
19. 8-inch iron pipe.
20. Future extension for laundry.
21. Contagious unit, 30 by 20 feet.
22. Future extension for contagious units.
23. Latrine, 30 by 20 feet.
24. Hospital corps barracks, 128 by 20 feet.
25. Hospital corps mess hall, 84 by 20 feet.
26. Officers' ward (64 by 20 feet) with future extension to right.
27. Road 12 feet wide.
28. Mess hall (128 by 20 feet) with future extension to right.
29. Future extension for wards.
30. Existing concrete pier extended 100 feet.
31. Six wards, each 128 by 20 feet.
32. Future extension of wards.
33. Operating pavilion, 64 by 20 feet.
34. Signal station.

sides, where the linoleum does not cover the floor, these cracks have been utilized as additional ventilators, and the cold air coming up through them strikes the radiators before being diffused. Half-round strips of wood protect the edges of the linoleum, and the spaces between these strips and the walls are painted white to insure cleanliness. The walls are finished in distemper (cold water paint), a pale green being used for the walls and

white for the roof and beams. Three roof ventilators are provided in each ward, and the general structure is such as to insure plenty of air circulation. The electric lights are placed in the midline of the wards, one to every 20 feet; they are alternately 20 and 30 candle power. All ward lights are controlled from the switch at the nurse's desk, and over her desk is a light on a separate switch. The roofs are covered with rubberoid paper, painted with a coat of mastic and gravel.

The officers' ward is in all respects the same as the main wards except for its smaller size (64 by 20 feet). It holds seventeen beds. The three isolation wards are each 32 by 20 feet, and each holds ten beds. They are somewhat different in arrangement from the main wards, as shown by the plans.

#### THE GENERAL MESS HALL

This building is 128 by 20 feet. It is a combined galley and mess hall. At the north end are two storerooms, one for dry and one for cold stores. The floor of galley and storerooms is of concrete. Two ranges are provided, also two steam kettles, one of 80-gallon and one of 50-gallon capacity. A large wooden sink (6 feet by 18 inches by 18 inches) with steam pipe for live steam, also hot and cold water, provides dishwashing facilities. Next to the sink is a slop hopper for dirty water, and both empty into a large underground grease trap outside the building, the trap being built of brick and fitted with baffles to keep the grease out of the sewer. A serving counter separates the galley from the mess hall. Near the counter is a plate-warmer, on the mess hall side. The messing is by the cafeteria system, which insures rapid and economical service with hot food for every man. The men form in line in the mess hall, and, as each passes the plate-warmer, he takes from it the necessary hot dishes. On the counter are large pans containing hot meat and vegetables, also desserts on individual plates. As each man passes along the counter he holds out his plate and is served with the food he wants and as much of it as he asks for. Any articles he does not care for he passes by. After being served he goes to his place at the table and sits down to eat. On the



Fig. 4. Typical wards of the U. S. Naval Base Hospital No. 4.

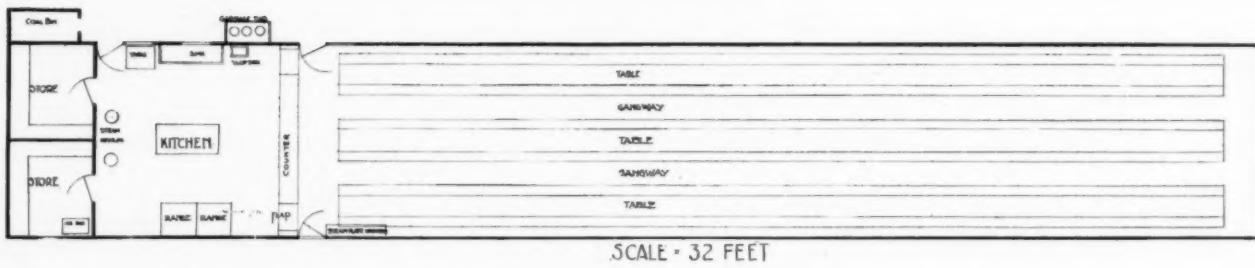


Fig. 5. Hospital mess hall.

table are bread, butter, coffee, and eating utensils. The building was designed to seat two hundred and fifty but will accommodate three hundred with comfort. Food for the adjacent wards is also prepared in this building and transported in carriers to the wards by the runways. The carriers are hot-water-jacketed to keep the food warm while it is being taken to the wards.

At the south end of this building, and separated from the mess hall, is the receiving room where patients are brought for admission. They are examined here and distributed to the wards by the runways on wheeled stretchers.

#### OPERATING PAVILION

This building is 64 by 20 feet. It has the laboratory, two operating units, and the x-ray laboratory. Each operating unit consists of operating room, etherizing room, and sterilizer room. The sterilizer room is used also for a wash room in preparing for operations. The operating units are finished in Keene's cement laid on a backing of fibro-plaster board and coated with white distemper. Each outside panel has a window, and there is a large skylight of ribbed glass over the operating table. A cluster of five 50-candle-power lamps with a reflector provides light for operating at night. The floor is of a composition laid on like cement. The sterilizer room of the north unit has a standard battleship sterilizer, a compact unit combining hot and cold sterile water tanks, and instrument, dressing, and basin sterilizers. The heating is by kerosene burners vaporizing the kerosene under pressure. There are also two sinks with hot and cold running water.

The x-ray laboratory is equipped with an x-ray transformer, a table for horizontal fluoroscopy, a vertical fluoroscope, a stereoscope, a plate-changing device for rapid chest work, and an overhead trolley system allowing an easy change from the tube stand to the tube beneath the table. The transformer rests on a solid concrete pier extending to the ground and separated from the building to prevent vibration. A dark room was built adjacent to the x-ray laboratory. It is entered by a baffle and is equipped for de-

veloping by the tank system. A space 4 by 16 feet adjacent to the x-ray laboratory is utilized as a toilet and dressing room.

The laboratory has a work table along the windows on the east side, with gas and running water. On the north side are sink and drain boards, distilling apparatus and water-power centrifuge. There are also the usual sterilizers, paraffin oven, incubator, refrigerators, and electrical centrifuge, the latter on a concrete block resting on the ground to avoid vibration.

#### THE ADMINISTRATION BUILDING

This is divided into offices, store rooms, bedrooms for pharmacists, nose and throat room, dispensary, linen room, toilets, and mess hall for pharmacists. The telephone central is located at the east end of the corridor which runs across the building, adjacent to the offices of the executive officer and the officer of the day.

#### HOSPITAL CORPS QUARTERS

There are attached to the hospital about one



Fig. 6. Nurses' home.

hundred and twenty-five enlisted men of the United States Navy, hospital corps men (male nurses), cooks and mess attendants, carpenters, clerical force, plumbers, electricians, chauffeurs, and firemen. They are quartered in four buildings forming the western end of the hospital group. There are two barracks, 128 by 20 feet each, a mess hall 84 by 20, and a latrine 32 by

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20 feet. The mess hall is similar in arrangement to the general mess hall. The latrine has a 6-foot trough urinal, six water closets, five showers with hot and cold water, and a wooden sink 22 feet long by 14 inches deep, provided with fourteen wash basins and cold water taps. The floor of the latrine is concrete. The barracks will accommodate about sixty men each. Each barracks

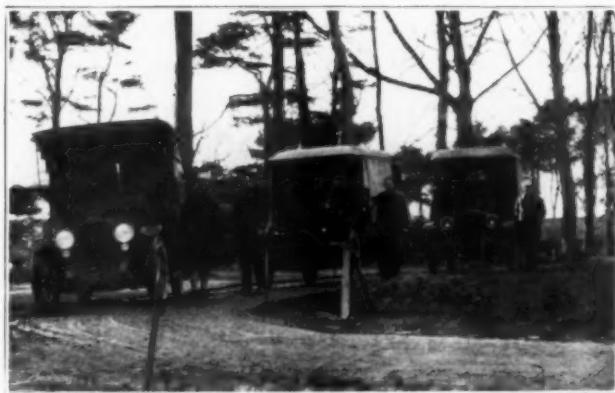


Fig. 7. Flotilla of motor ambulances belonging to the U. S. Navy Base Hospital No. 4.

has two separate rooms for chief petty officers, and the north building, Barracks A, has an additional room for three chief petty officers. The rooms are provided with hospital beds; the other men sleep on folding cots. Back of each cot the space is occupied by two shelves with hooks underneath and a curtain hanging from the upper shelf to make a wardrobe. Just above the radiator pipe, about 18 inches from the floor, is a shelf of slats for drying shoes. In this land of rain and mud such an arrangement is important.

## **WATER SUPPLY**

This was a serious problem, as the supply available from the city was limited and uncertain. Furthermore, because of the unstable political conditions, we desired to be as independent and self-sufficient as possible. Therefore an effort was made to secure our own supply by sinking a well on the grounds. The well was bored to a depth of 146 feet, and, as at this depth there was no sign of water, a charge of dynamite was

set off, but no water was secured. Permission was then secured to tap the line running to the dockyard nearby, and that is the present source of our supply. It is sufficient in winter but precarious in summer. Two iron tanks were secured, one of 10,000 and one of 2,300 imperial gallons capacity. A brick pier 22 feet high was built, and on this the large tank was placed with the smaller one on top of it. A small reserve is thus provided in case of failure of the supply. In order to lessen our dependence on the fresh water supply and reduce the consumption, as well as to provide fire protection, a system of salt water piping and pumps was installed. This provides for flushing of all toilets and urinals by two Worthington steam pumps, and a third pump delivering 500 gallons per minute was installed to provide additional pressure in case of fire. The salt water system is of 4-inch cast iron pipe and there are nine hydrants. A portable building 14 by 20 feet was used for a pump house and was placed at the bottom of the bank close to the power house. The suction pipe was run out over the mud flats to low water at the end of the pier. At high-water level is a small tank with strainer and a by-pass for use in case of obstruction at the strainer. The tidal range is about twelve feet.

## **SEWERAGE SYSTEM**

This is of 6-inch earthenware piping, except the part of the western line running to the isolation wards, which is of 5-inch pipe. Examination chambers are furnished at all bends so that any part of the line can be cleaned directly. From the junction of the three main branches a 6-inch cast iron pipe was carried over a rock bank about 15 feet high and across the mud flats about 270 feet to deep water. The 6-inch pipes were considered large enough to carry the load, since there was to be a continuous salt water flow through all lines.

In planning the fresh and salt water supply and heating, lighting, and sewerage systems, provision was made for naval barracks to accommodate fifteen hundred men which were to be located in the field adjacent to the hospital, in addition to the

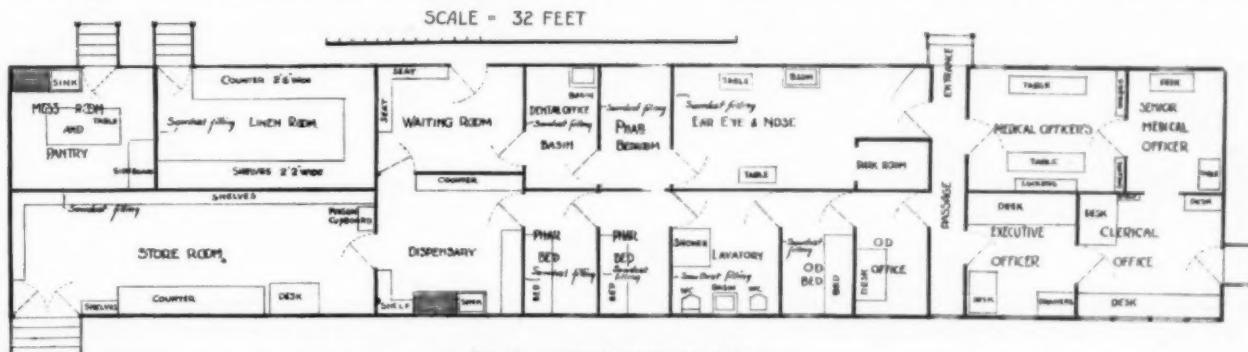


Fig. 8. Administration building.

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requirements of the hospital. The sewage from the naval barracks was to be carried by the eastern branch of the sewer. These naval barracks, however, were not completed at the time of cessation of hostilities and were never occupied by more than one hundred men.

### HEATING SYSTEM

Radiating pipes giving 1 square foot of radiating surface per linear foot, or 10 square feet per thousand cubic feet of air space, were run on each side of each building. This area is considered ample, as the temperature seldom goes below the freezing point. The distribution from the power house is by high-pressure pipes running over the roofs of the buildings; these are covered with asbestos lagging, wrapped with canvas and coated with mastic. The main steam pipes carry steam at a pressure of 50 to 60 pounds per square inch. In the buildings pressure-reducing valves bring this down to 5 to 6 pounds in the radiating pipes. Because of the shortage of water, the condensed water is drained to the lowest point, below the wards, whence an automatic steam pump returns it to the boilers. Hot water for diet kitchens, shower baths, and operating room is provided by instantaneous steam mixers by which any desired temperature may be secured.

### POWER HOUSE

This is of brick with corrugated iron roof. It is 32 by 20 feet, divided into a boiler room and a machinery room. Three vertical boilers, each 6 feet 6 inches in diameter by 14 feet high, were obtained. These have horizontal flue tubes giving 450 square feet of heating surface in each boiler and 22½ square feet of grate surface. They are so connected that they may be used singly or as a group.

The electric current is generated by two belt-driven direct-current generators, each giving 15 kilowatts at 220 volts. The engine driving the generators are of single-cylinder, high-speed, ver-

tical type. This equipment supplies light to the hospital buildings and power for the x-ray machinery as well as the moving picture machine in the recreation building. In order to use the 110-volt rotary converter that came with the x-ray outfit, an additional motor of about 12 horse power was installed to drive this converter from the 220-volt direct-current main.

Coal for the power house is landed at the pier in bags and transported up a wooden runway to a coal pocket of 150-ton capacity outside the power house.

### NURSES' HOME

For the accommodation of the thirty nurses attached to the unit, a substantial old house that was already on the grounds was refurnished and modernized. Of course, no mere man could have taken a moldy old house and transformed it into a habitation in which women could live and be happy, so we were fortunate in having two American ladies to take charge of this feature. Mrs. Charles M. Hathaway, wife of the American consul at this port, and Mrs. Peter Clark Macfarlane, wife of the author, planned the decorating and furnishings and chose the color schemes for the various rooms. They spent many days in selecting furniture and making curtains. So excellent was their work and so wise their selection that when the nurses arrived and saw the completed house, there was nothing but praise and delight in the comfort and beauty of their home.

In addition to the redecorating and furnishing, the house was fitted with steam heat and electric lights; additional showers and toilets were installed. Adjoining the house is a wonderful old-fashioned garden enclosed in a high wall, against which are trained pear and peach trees. There are vegetables of all kinds and many varieties of flowers. The roses and violets are still blooming in December.

Eighteen nurses are quartered in the old house. The additional twelve were provided for by erecting an annex 32 by 20 feet on the tennis court back of the house. The beds are placed six on a side with an aisle between, and curtains are hung so that each bed may be screened off in a small cubicle. On the wall back of each bed is a shelf with hooks underneath and a curtain to make a small wardrobe. The general effect is such that all the Americans who see the place at once call it "the Pullman car." The beds are of the standard hospital type, high, of white enamel, and to provide storage room a cabinet was designed and built for each bed, just high enough to fit under the bed and with a cupboard and drawer which hold the clothing and toilet articles. This building also has steam heat and electric light. On the



Fig. 9. Runway connecting Ward 5 (background) with sick officers' ward (left) and hospital corps mess hall (right).

north end was built a lavatory with concrete floor which contains a bathtub, three water closets, two showers, drying room, and four wash basins.

In addition to the above-mentioned buildings, several smaller ones have been found necessary and have been constructed of square panels. There is a Red Cross office and storehouse; a chapel in which Catholic and Protestant services are held; a brig with two cells, which we have never had to use for the purpose for which it was built; a commissary storehouse and office; a bagroom and morgue. The morgue proved to be a most important part of the hospital, for one of the men of the unit was an expert embalmer and all the dead of the navy within a radius of several hundred miles were sent here to be prepared for shipment home. The American Y. M. C. A. has constructed a building on the hospital grounds which provides reading rooms, pool table, shuffle board, barber shop, canteen, postoffice, moving pictures, and other devices for amusement, as well as educational courses, which serve to keep up the morale during the long days of convalescence. A stage is provided, and we found among the members of the unit actors, stage electricians, and stage carpenters who have put on a number of excellent productions. The curtain, showing a destroyer in a rough sea, is an excellent piece of work done by one of our enlisted men.

A very great part of the credit for the rapid construction of the hospital is due to the enlisted men of the unit. Their "win-the-war" spirit was most admirable. They worked without regard to fatigue or late hours. They worked several times as rapidly as the native laborers and much more intelligently. Six native painters painted one of the wards in a week; five of our men painted one of the same size in a day and did just as good work. In one day they unloaded 80 tons of rock from a barge on to a truck, brought it to the hospital, broke it into small size with mauls, and spread it on the roads. They asked that their supper hour be postponed so that they might complete the job in one day.

The doctors, nurses, and enlisted personnel of this unit, with the exception of the commanding officer and the executive, came from Providence and the unit was organized by Dr. George A. Matteson of Providence. The members of the unit were trained at the U. S. Naval Hospital, Newport, R. I., before being sent overseas. The doctors and nurses arrived October 9, and on October 11 the hospital opened to receive patients, the first being the survivors from a U. S. destroyer which had been cut in two by a liner which she was convoying. Two weeks later the influenza arrived, and, in a few days, the hospital had more patients



Fig. 10. Rear of operating pavilion. The small projection in the center is the x-ray dark room.

than could be accommodated by the use of its full capacity.

The equipment was furnished in part by the Navy Department and in part by the American Red Cross.

#### RECONSTRUCTION—THE TUBERCULOSIS PATIENTS' POINT OF VIEW

##### Results of Census Taken Among Patients at the Wisconsin State Sanatorium

In order to find out what the patients thought about occupations in the sanatorium, the Wisconsin State Sanatorium recently distributed among its people the following questionnaire:

1. What was your everyday work before coming to the sanatorium?
2. What work do you expect to do after leaving?
3. How do you spend your time at the sanatorium? (Tatting, etc.)
4. How would you like to spend your time at the sanatorium? In (a) exercise as at present; (b) work classes, such as in basket weaving and printing; (c) educational classes, such as correspondence or university extension work in agriculture, etc.?

One hundred and twenty-five answers were received.

The inquiry brought out a number of interesting facts. The answers to 1 and 2 showed that a majority of the patients wished to follow their old line of work when they leave the sanatorium, except that a rather large number of women wish to take up tuberculosis nursing. The answer to 3 showed that reading and fancy-work were the most usual diversions, even among the men; only eight out of the hundred and twenty-five were engaged in any sort of productive employment. The answers to 4 showed that exercise as at present employed at the sanatorium does not fulfill any real function as a satisfactory diversion, for all but four wished to try something else. In the answers to 4 (b) basket weaving and printing received very few votes, and in 4 (c) educational classes outstripped manual work in popularity by a large majority.

These results, of course, are merely suggestive. The patients were made to understand that the census was taken merely as a matter of interest and not as a basis for future action. The real question is the desirability of the different sorts of work as a therapeutic measure. Should it seem advisable to organize any of the classes under discussion, the Wisconsin Tuberculosis Sanatorium will have the cooperation of the Extension Division of the University of Wisconsin.

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### THE APPLICATION OF HOTEL SERVICE TO THE HOSPITAL

#### **Objectionable Institutional Atmosphere Unnecessary—Attention to Details of Comfort and Entertainment Make the Hospital Livable—Specific Suggestions Taken From Hotels and Clubs**

BY H. V. PETTIT, SUPERINTENDENT OTTAWA TUBERCULOSIS COLONY AND ILLINOIS VALLEY HOSPITAL, OTTAWA, ILL.

**T**O the lay mind the term "institution" implies an establishment for the care of the sick, distressed, and unfortunate—the blind, the lame, and the halt—a charity—a place to be avoided

ing it and even more strongly when he enters its portals.

In the early institution which housed both the sick and the other dependents, the advantage of segregating the sick from the other inmates was eventually recognized, and more particularly with the advent of scientific medicine. This brought about the beginning of the hospital which was intended exclusively for the care of the sick. Since it is basically a medical institution, every step in its development has been viewed primarily from a medical standpoint, and today we all know that the practice of modern medicine has become so complex and so dependent upon the hospital that it is impossible to render scientific medical service without its aid.

It is obvious that the hospital must always be a medical institution, and its greatest possibilities for development are in the medical field. However, is it not possible that in our endeavor to perfect the hospital medically we have been inclined to ignore another side, also capable of improvement, which might aid in a great measure to offset the undesirable institutional atmosphere? My conception of an ideal hospital is one which in the proper proportions combines the medical efficiency of the thoroughly modern hospital with the comforts, conveniences, individual service, and genial atmosphere of the thoroughly modern hotel or club. A few institutions have accomplished this to a marked degree—but apparently only a few.

First-class hotel or club service is somewhat



Fig. 1. One thing which contributes a great deal to the homelike atmosphere of the Ottawa Tuberculosis Colony is the social center which is found in the club house where dining room, lounging room, and library are located.

if possible and a place suggestive of human misfortune. In general this is the lay opinion of all classes of hospitals—public, private, and special—and with some justice. Consequently, when one speaks of "institutional atmosphere" it immediately suggests to the public mind the cold, barren walls of a large building, the misfortune and suffering of human beings, the absence of cheer, tile walls and floors, bare rooms, white enamel, sanitation to the extreme, and confinement. This impression is undoubtedly due in a measure to the fact that the modern hospital is the outgrowth and development of the almshouse and purely charitable institutions, and it is conceded that the original institutions for the care of the dependent and infirm were most forbidding and almost repulsive. It was only the most destitute and unfortunate who availed themselves of their benevolences.

But, notwithstanding the wonderful development of the hospital, structurally and scientifically, and the introduction of unnumbered added comforts and conveniences, there still remains a public antipathy toward it. The average hospital of today has only partially succeeded in eliminating the so-called "institutional atmosphere" which every layman feels upon approach-



Fig. 2. The main dining room of the Ottawa Tuberculosis Colony.

expensive and necessarily can be provided only for private patients, but it is this class in every community which contributes most to the support of the hospital and represents the backbone of public influence, either for or against any institution. These facts alone justify the introduction of high-class hotel or club service into the hospital, much of which also adds to the comfort of all patients.

Specifically, here are some of the hotel and club features which the hospital might adopt advantageously:

The front office should be inviting, easily accessible, arranged to give information quickly and accurately, and in charge of competent clerks. It should be decorated harmoniously and equipped with comfortable chairs and settees and other conveniences for the comfort of visitors and patients. First impressions are made in the office; and, if it presents a cheerful, comfortable, and pleasant atmosphere, much is gained.

The psychological influence of environment is well recognized, as is the beneficent effect of pleasant surroundings. That the progressive hotel operator fully appreciates this, is evidenced by some of the recent wonderful hotel creations. Within limits, the more a patient can be made to forget that he is in a hospital, the better it speaks for the efficiency of the management. This can, at least, be partially accomplished by the careful arrangement, equipment, and decoration of his room. Plain but harmonious and soft wall colors, hangings, and rugs, a lighting system which does not tire the eyes and which can be dimmed, a private bath, a telephone, a writing desk, comfortable, easy chairs, an electric plug for connecting a heating pad, a portable reading lamp, and an electric toaster and fan, all help to make the patient forget his troubles. Beds equipped

with rubber-tired wheels and large doors which make it possible for the patients to be rolled out to an inviting sun parlor furnish a relief from the monotony of their rooms to many patients who would otherwise be restive under their enforced confinement.

Daily papers, available for all patients who are in condition to read them, should be supplied.

Vacuum bottles add much to the comfort of the patient and save steps for nurses.

The possibilities for the application of hotel or



Fig. 4. This beautiful, sunlit pergola is a place of true enjoyment to the patients of the Ottawa Tuberculosis Colony.



Fig. 3. The old-fashioned fireplace and easy chairs make the lounging room and library of the Ottawa Tuberculosis a place of real comfort.

club service to hospital dietetics are necessarily limited. However, there are many patients on full diet who appreciate a reasonable choice of foods, such as is provided in the table d'hote hotel or club plan, and these patients should be presented with a bill of fare and be permitted to choose from it. There are also great possibilities to be found in tray service by adding the little touches so frequently ignored. First of all, large trays should be used, so that there is ample room for the patient to serve himself with comfort. There is too often a tendency to serve crowded trays. Foods should be daintily garnished and served in an appetizing manner. Finger bowls make for high-class service and

serve a useful purpose. Dishes, too, are an important consideration. There should be a complete complement of china ware of simple, dainty pattern, which should include individual casseroles, small individual platters, toast covers, etc.

So much for equipment and service.

Probably one thing more offensive to patients and visitors than anything else in connection with the hospital, is the peculiar "hospital odor"—the combination of antiseptics, ether, and body emanations. The location of the operating rooms, duty rooms, and kitchens with relation to the patients' rooms have much to do with this proposition. If the hospital is not well arranged in this respect, there is all the more reason for making a special effort to secure ample ventilation. With sufficient care and effort, odors can be practically overcome, and many hospitals have succeeded in doing so. Several new metropolitan hotels have gone to great expense in installing special machinery to wash and purify thoroughly the air of their dining rooms, kitchens, and lobbies.

For the special hospital, such as the tuberculosis hospitals, institutions for nervous and mental

cases, sanitariums and "rest cures," there are even greater possibilities for the application of hotel service than in the hospital proper. In these a large percentage of the patients are not bedfast and are in a physical condition which permits them to be up and around, and they can, to a great extent, be treated as "guests" quite as much as patients. With these patients the problem of entertainment is a very important matter, and, if intelligently directed, the moving pictures, miniature golf, travel lectures, musicales, holiday celebrations, checkers and chess, are of great value.

A comparatively recent innovation which can hardly be credited to the hotel, but which is rapidly being incorporated into even many of the best hotels, is the popular cafeteria system of serving food. This system could undoubtedly be used to advantage in hospitals serving food to a large number of employees and in public institutions for the care of the tuberculous and insane.

The hotel and hospital are very similar. Their common function is to provide creature comforts and care—one for the well, the other for the sick and each has much to learn from the other.

## DEPARTMENT OF ANESTHESIA AT THE ROYAL VICTORIA HOSPITAL, MONTREAL

### **Importance of Properly Conducted Anesthesia Now Generally Recognized—The Question of Remuneration for the Anesthetist—Two Kinds of Masks Used in Ordinary Operation—Other Instruments and Apparatus**

BY W. H. HOWELL, M.D., CHIEF ANESTHETIST, ROYAL VICTORIA HOSPITAL, MONTREAL

IN no branch of medicine or surgery can there be said to have been a greater improvement during the last two decades than in anesthesia. Twenty years ago anesthetics were generally administered in large hospitals by junior interns who looked upon this work as an irksome task, to be undertaken only because it might lead to something better. Moreover, they hoped to be able to learn surgery by devoting the larger part of their attention to the operations and as little as possible to the anesthesia. They received no systematic instruction and as soon as possible took up other work.

In some hospitals in Great Britain, the anesthetics were given by students under the nominal supervision of clinical tutors. The Clover's Inhaler was generally used for the administration of ether. No preliminary medication was used, and the upper air passages were usually full of secretion with consequent cyanosis. So irregular was the course of anesthesia that vomiting and temporary cessation of respiration during the

operation were common events. Frequently the operation had to be interrupted while the surgeon helped the anesthetist to restore the patient. It was a common thing for the patient to vomit for hours after the operation. The horrible sensations he had experienced in taking the anesthetic and in recovering from it made him remember it as the worst part of his operation.

With the gradual improvement in surgical technic and the extension of the field of the surgeon's activities came the feeling that he must be free to devote his undivided attention to his work without the interruption and worries connected with anesthesia. In addition it was also recognized that improper anesthesia seriously compromised the patient's chances of recovery.

Since that time not only the surgeon, but the public, also, have awakened to the importance of properly conducted anesthesia. Private patients are prepared to pay for its benefits. A gradually increasing number of medical men, being assured of a reasonable livelihood, have become willing to

give all their time to this department of surgical work. Most first-class hospitals have now one or more attending specialists in anesthesia who administer the anesthetics to private patients, are available for difficult public cases, train interns, and teach students.

The question of remuneration of the specialist presents certain difficulties. If his fee varies according to the nature of the case and the financial status of the patient, the latter, comparing notes with others, often thinks he has been unjustly treated and blames the hospital. If the hospital sets a certain definite fee or scale of fees for the anesthetics, there is less likelihood of dissatisfaction among the patients.

The anesthetist is only human, however, and it is not to be wondered at if, being paid by the case, he prefers to take two short and unimportant cases occurring at the same time to a long and serious one, leaving the latter to an intern.

Perhaps the most satisfactory way is to have the anesthetist paid a proper salary. He is then free to take the cases which require him most and assign the less important ones to his assistants. It is very important that he should be always available. The more work he does outside the hospital, the more often is he not to be found when wanted. For this reason, it is a good principle to pay him enough to make it worth his while to do no outside work and to confine himself solely to the work of the hospital.

For the routine public work a variable number of assistants is necessary. They may be interns or nurses. Interns may be appointed for short terms such as three months, the juniors serving in rotation. In this way a certain proportion of the house staff acquires a reasonable degree of proficiency, which makes them useful to the hospital in cases of emergency. It is also a very useful experience for the young practitioner and is likely to stand him in good stead when he is waiting for patients. Moreover, no one intending to practice surgery can very well dispense with a practical knowledge of anesthesia. The period of three months, however, necessitates more frequent changes than are convenient for the surgical work. The appointments are better made for six months or a year, but in order to keep men so long as this, it is well to pay them a reasonable salary.

The house anesthetists should reside in the hospital and can take turns to be on duty after the usual hours.

In many clinics trained nurses are used as anesthetists. With them there are less frequent changes than with the interns, but even trained nurses cannot be regarded as permanencies. As

soon as the opportunity comes for them to do something else which will pay them better, or as soon as there is a prospect of matrimony, their work will be relinquished.

Anesthesia in the hands of nurses or others without a medical education devolves in most cases into an unvarying mechanical process and the adherence to one method for all cases. Great as have been the advances in recent years, it is not too much to hope that they will be equally great in the near future. It cannot be expected that such advances will be made by nurse anesthetists. For the investigation of the problems of anesthesia a sound medical education is required, and especially a knowledge of chemistry, physics, and physiology. The hospital which employs only nurse anesthetists abandons all hope of having a share in advances in this field. Moreover, the teaching of students is better done by a graduate in medicine. If the students see a woman with no medical qualification in charge of anesthesia, it is only natural that they should conclude that it is a matter of minor importance and easily learned.

This matter also has a medicolegal aspect. In the event of a death on the table the surgeon will have to acknowledge, in case of an inquest, that he was responsible for the anesthesia, as well as for the operation. If asked how much attention he was giving to the anesthetic, he will have to confess, if he is honest, that he was giving little or none. The natural corollary to a statement that he was watching the anesthesia would be that he had only part of his attention on the operation.

The number of deaths occurring from anesthetics has probably been greatly underestimated, as by far the greater number are not reported. Many of these take place in small hospitals, to whose interest it is to have the matter hushed up, and are due to ignorance and lack of skill, either in qualified or unqualified anesthetists.

What applies in the case of the nurse anesthetist applies with additional force to the employment of women who are neither doctors nor nurses.

The highly qualified anesthetist, in addition to having a general knowledge of medicine, must be familiar from long practice with the usual anesthetics and the various methods of administering them. He must not be content to follow one method only or to use the same anesthetic for all cases. It is his business to estimate the condition of the patient and the requirements of the surgeon. He must choose the anesthetic which is most clearly indicated and administer it in the manner best adapted to the case. He must be



Fig. 1. Inhaler for use in ordinary operation: A, upper part; B, lower part; C, four layers of stockinette sewn together at edges.

alive to the possibilities of improvement in his methods and should have enough initiation to carry out his ideas.

On the staff of the Royal Victoria Hospital there are two attending specialists in anesthesia. They do no work outside the hospital and are paid salaries. The position of the senior one is combined with the position of lecturer in anesthetics at McGill University. He is responsible for the management of the department of anesthesia in the hospital, for the training of interns, and for the practical instruction of students. There are two interns who take the position for a year, live in the building, and are paid salaries. In the Ross Memorial Pavilion for private patients there are two operating rooms and two anesthetic rooms. In each of these four rooms, compressed air, piped from an electrical engine in the garage, is used to operate Connell's anesthetometer, of which we have two. They are in frequent use for intrapharyngeal and intratracheal insufflation in operations about the head and chest. In addition, these four rooms have taps in the walls connected with pipes leading to nitrous oxide and oxygen tanks in the attics. The instrument used for the administration of these gases is a mono-valve, of which we have one for each operating room.

We have found it most convenient to use Hewitt's wide bore inhaler with nitrous-oxide stop-cock for commencing ether with "gas." This is connected with small nitrous-oxide and oxygen cylinders carried in a light carriage on wheels. If oxygen is required during an operation, this carriage can be quickly wheeled into the operating room and the oxygen administered with Hewitt's inhaler with or without ether.

When the patient is fully anesthetized our routine method is to change to the open method. We have two masks in ordinary uses. One is a fairly large wire frame covered with four layers of stockinette; over this two or more layers of

towelling are so arranged as to leave uncovered at the top a space three or four inches in diameter upon which the ether can be dropped. Another inhaler, which is found to be more economical, is shown in Figure 1 accompanying. It consists of an upper part (A) and a lower part (B) which fit into one another and hold between them four layers of stockinette. A pad such as shown in Figure 2 is used to protect the face against the sharp edge of the inhaler and to prevent ether from reaching the face. It has the advantage of being simple, easily cleaned and durable, but can be used only when the patient's face is turned upward.

Considerable ether is saved by this mask because the evaporating surface is at a lower level than the top of the inhaler. Inspired air, therefore, becomes partly charged with ether from the last expiration before it reaches the evaporating surface.

We are not in accord here with many American surgeons and anesthetists in thinking that there is no place for chloroform as an anesthetic. We use it in certain cases, but not often. The instrument used is the Vernon Harcourt inhaler, which enables the dosage to be exactly regulated.

The question of the expense in the use of the large quantities of ether required by the open method has been the subject of considerable thought. We hope to effect a considerable saving by the use of the Ben Morgan apparatus which we have recently commenced to use.

In the public operating rooms we use a machine for the administration of the nitrous-oxide gas and oxygen mixture. Two large cylinders

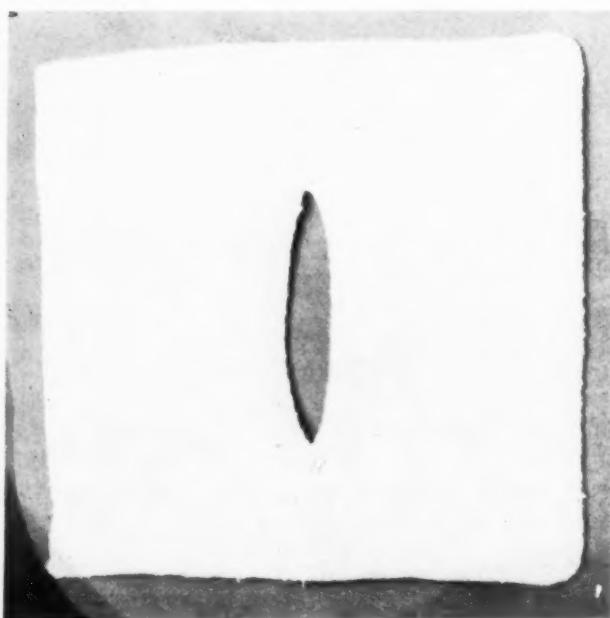


Fig. 2. Pad to protect face, leaving nose and mouth uncovered.

are carried on a wheeled carriage. Because of the difficulty in obtaining a constant supply of nitrous-oxide gas, we do not generally use it to commence ether in public cases. For intratracheal and intrapharyngeal insufflation Janeway's apparatus is used. Another Janeway's apparatus is kept in the outdoor department, and is used a great deal for tonsillectomies.

In all our operating rooms we have a plentiful supply of Connell's air ways and find them invaluable. A modification made with a tube for the administration of ether vapor is used for operations on the face above the level of the nose.

The anesthetic department is supplied with blood pressure apparatus for use during serious operations.

Every encouragement is given to the head of the department to visit other large centers to see what is being done in his field. Advances in recent years have robbed anesthesia of its worst horrors for the patient. It is, perhaps, not too much to hope that in the future further improve-



Fig. 3. The mask ready for use.

ments will enable the patient to look forward to his period of unconsciousness with as little dread as if it were but normal sleep.

#### American Red Cross in North Russia

The first Red Cross boat to reach Archangel landed directly in front of the Archangel Monastery, which is located in an eight-sided stockade with a little block-house at each corner. The church is very ancient, and quite the gaudiest building architecturally in Archangel, with white walls, bright green tiled roof and five big domes covered with solid gold leaf. It is easily the most picturesque of all the domed buildings in North Russia, and the big mushroom-shaped domes have a striking appearance as compared with the more slender domes of some of the other churches. The roofs of the block-houses and the stockade-wall are bright red. This is the church which is most largely used for important funerals, which are always superb performances with bands, a hearse built up on great columns with canopied roof, horses covered with white lace, and preceded by a procession of priests in gorgeous robes of gold and silver, before whom is spread a carpet of evergreen boughs.



The Archangel Monastery (Farchangelsky Monastwo).

#### Professional Reeducation in Italy

The first year of the war demonstrated that professional reeducation is a failure if it is not preceded by an early harmonious physical and moral preparation of the crippled men and followed by a careful supervision of the man in the post-reeducational period. Having in mind these facts, the Italian legislature passed a law March 25, 1917, organizing the whole work of reeducation and creating a National Board for the Protection and Aid of Crippled Soldiers. This law recognized the fact that pre-reeducation, or the physical and moral preparation of the men, must begin from the very time it is realized that a man will remain a cripple for life. For this purpose all the severely injured soldiers are at the very earliest possible time concentrated in two great surgical centers, one at Mantua, in the north of Italy, and the other at Bari, in the southern part. From here the men are distributed to the large regional hospitals at Turin, Milan, Genoa, Bologna, Florence, Rome, Naples and Palermo, the idea being to bring the men as near their homes as possible. At these points the previously commenced physical and moral education is continued and the patients are put to light work. From these hospitals the patients are transferred to secondary regional hospitals, where the physical and orthopedic treatment is completed and the stumps put in the best possible condition. Reeducation begins, and the illiterates are sent to school.

The prosthetic appliances given here are, however, only temporary. From these hospitals the crippled men are sent to the various institutions of reeducation, where they receive their permanent prosthetic appliances, working arms, etc., and are trained in a special trade.

While reeducation is not obligatory in Italy, very few men refuse to undergo the training. There exists now a large association among the crippled soldiers, numbering more than twenty thousand members, whose object is to further their cause.

E. Levi writes on this subject in the *Riforma Medica* of Naples.

## THE CARE OF INFECTIOUS DISEASES IN HOSPITALS\*

**Advantages to the Patient and to Society of Hospital Care—The History of the Theory of Transmissible Diseases—Atmospheric Transmission of Disease Probably of Negligible Importance**

BY D. L. RICHARDSON, M.D., SUPERINTENDENT PROVIDENCE CITY HOSPITAL, PROVIDENCE, R. I.

A PROPERLY equipped and well-conducted hospital for infectious diseases is a great asset to any community. It serves a threefold purpose: first, to save life; secondly, as an aid in keeping within bounds and decreasing infectious diseases; and thirdly, it is a convenience and economic saving to afflicted families.

There is no disputing the fact that hospital treatment saves much life, particularly among those suffering from diphtheria, cerebrospinal meningitis, and other diseases, when special skilled treatment and apparatus are required which no home can afford.

Their value in combating or stamping out infectious diseases may be questionable, but undoubtedly they have played a part. Beginning as early as 1865, hospitals for contagious diseases were erected in England, first for scarlet fever, and later for diphtheria. Subsequently the London fever hospitals admitted measles, whooping cough, typhus fever, puerperal fever, and epidemic cerebrospinal meningitis. In examining the effect they have had on the incidence of scarlet fever in the population, it must be admitted that, although 90 per cent of this disease as recognized has for many years now been sent to these hospitals, its prevalence has not materially decreased. The mortality, however, has been greatly lessened, until now, for several years, the mortality from this disease in the hospital is slightly less than 2 per cent. There is little doubt that this has been brought about by a process of natural selection. To the hospitals have been sent the worst cases, leaving the milder cases as the propagators of the disease.

A good hospital for infectious diseases is much appreciated by physician and family. For the doctor it solves many difficult problems in the home, when he is called to a contagious case; it also helps in obviating the danger to the members of the family, interruption of the work of the breadwinner, and the breaking up of the school attendance of the other children.

The hospitals of this country, like those in England and elsewhere, have been built primarily for diphtheria and scarlet fever. In recent years a few have admitted measles and whooping cough.

Without here discussing the feasibility of caring for multiple diseases in the same or neighboring buildings, it will be admitted by all that there are many other diseases, like cerebrospinal meningitis, chicken pox, smallpox, erysipelas, and other recognized infectious diseases which should be logically sent to an infectious disease hospital. Formerly a person who contracted diphtheria or smallpox was in disgrace. Any place at all was good enough for him to be sent to. The public little cared how the patient fared, or whether he recovered or not. The medical discoveries of recent years have helped to change the minds of at least the leaders of public affairs. In no group of human diseases can scientific treatment and nursing save so many lives. In acute diseases the issue is soon reached and the patient either dies or recovers completely to become again a useful member of society.

There can be little doubt that no city can afford to be without an up-to-date, properly equipped, and well-conducted hospital for infectious diseases. Hospitalization should, however, be well done or not done at all.

Before discussing hospital construction and management, it might be well to review a few facts relative to transmission of infectious diseases.

While studying medicine I was told the distinction between an infectious and a contagious disease. I never understood that distinction and I don't now. An infectious disease is any disease caused by some micro-organism. All these diseases are transmissible directly or indirectly, usually from man to man, for most diseases are peculiar to human beings. In some cases animals or insects suffer from the same disease or act as intermediary hosts. So that the terms "infectious" and "transmissible" or "communicable" are much superior to the old term "contagious." It must be borne in mind that some diseases are much more highly transmissible than others, and the modes of infection vary greatly. It becomes necessary to study every disease by itself and group those in which the methods of transmission are similar.

It is important to know the etiology of each disease. It enables the clinician to make an accurate diagnosis and make it possible to determine whether the patient is free from infection at the

\*This paper is the first of a series on the care of infectious diseases in hospitals. The next article will be a historical survey of aseptic nursing, and will include accounts of experience in French, English, and American Hospitals.

time of release from quarantine. It so happens that the causative organism is not known for many such common diseases as scarlet fever and measles. In either case, the physician ought to know by what avenue or avenues the virus escapes from the body, how early in the disease the patient is infectious, how long a time he continues to be infectious, and what diseases develop the carrier state. I realize that these facts are not known for all diseases, but even in the doubtful ones we have much data to guide us.

The next important fact to know is what becomes of the virus after leaving the human body. Bacteria, on leaving the human body, seldom multiply and usually die or become avirulent rather promptly, particularly under conditions of dryness and sunlight. This is exclusive of spore-bearing organisms, such as tetanus and anthrax bacilli. They do live sometimes in milk and water, ice cream, and a few other foodstuffs.

Stories told, in all good faith, of scarlet fever contracted from the clothing worn by a child, dead many years before, are not true. Were this a fact, how could any of us ever escape all the infectious diseases to which man is subject? This old notion has been the premise upon which much of our sanitary work has been built. Money has been spent chiefly on examining the plumbing, a damp cellar, a dirty back yard, or attempting to "sterilize" by fumigation, the rooms occupied by the patient, while the real source, a carrier or missed case, has been allowed to go at large and continue to do damage.

We must take the new point of view if we expect to make much headway in combating infectious diseases. It must be realized that the presence of a scarlet fever patient in the room does not mean that the atmosphere, the walls, and the contents of the room are infected generally; usually it is the gauze or cloth used to wipe the nose or mouth, the pillow slip, the feeder and dishes, the throat stick, nurses' and doctors' hands, and other things which are really soiled by the secretions of the nose and throat. It is the aim of modern workers to destroy promptly or to sterilize the moist secretions, for it is these which do the harm. So, too, in following any outbreak in a hospital or the community, one should direct attention to other members of the household, or those in immediate association with the patient, obtaining exact facts instead of at once beating about, aimlessly sterilizing, destroying, and fumigating.

It can not be too strongly emphasized that acute infectious diseases do not arise from our physical environment, but rather from our personal environment and common points of con-

tact. It is not things but human beings which are the real source of contagion. If there is an outbreak of typhoid fever, it is well known that the milk and water route is most likely the source. It is then essential to trace out the individual or individuals which have infected these sources. A successful search for any source resolves itself into a piece of detective work of the finest character. This requires a wide knowledge of the typical and atypical forms of acute disease, together with their bacteriology.

The three sources of infectious diseases in any community or institution are (1) the recognized clinical case, (2) the atypical or missed case, and (3) the carrier. How large a part each of these three factors relatively plays is not easy to say. It varies with the different diseases. It can, however, be truly said of many diseases that the missed cases are as numerous as the clinical cases. We do not know how many sore throats without membrane or unattended with rashes, are either diphtheria or scarlet fever, respectively.

So, too, many diseases develop the carrier state, and the patients continue for weeks or months or even years as constant or intermittent carriers. It is this fact, namely, that it is not easy or possible to locate every missed case or carrier, that has hindered the stamping out of many common infectious diseases.

The importance of atmospheric transmission of acute infectious diseases is a much-discussed question. When Koch, Pasteur, and others showed by their experiments that many acute diseases were caused by bacteria, there developed a new conception of prophylaxis and treatment. Bacteria were found in wound discharges or on objects generally, and even in the air. Surgeons saw at once a possible explanation of their septic wounds and why it was so dangerous to open the abdomen. They began to sterilize their instruments, hands, field of operation, and everything which came in contact with the wound. They also, in the beginning, sterilized the wound and air about the operative field. The inconvenience of the carbolic spray and its irritating effect upon the wound led to its gradual abandonment without increase in sepsis, and asepsis became an historic accomplishment.

Before this era, in Europe, infectious diseases were more or less admitted to general hospitals. When their transmissibility became evident in the light of bacteriological studies, they were isolated. Two methods of transmission were recognized, namely, contact direct or indirect, and atmospheric. The possibility of air infection was magnified in the minds of medical men, and, even up to the present day, too much importance has been

## THE MODERN HOSPITAL

ascribed to it. It seems strange that when the surgeons gave up the air spray that air infection should have continued to claim so much attention.

We can not deny that when particles of saliva are coughed into the face of the physician or nurse, there is danger of infection. At what distance there is no danger from a patient's cough, is hard to say, but it can not be far, perhaps three or four feet. It has been repeatedly shown that as petri dishes are placed at increasing distances from the mouth during cough that the number of colonies developing diminishes very rapidly. Now one of the determining factors of infection outside of immunity, virulence, and aggressivity, is the number of organisms ingested. It has been found in inoculation experiments upon tuberculosis that it requires at least twelve organisms,

sometimes many more, to infect a guinea pig. It becomes a question whether there are enough organisms in the air at a given distance from the patient to infect.

Even though disease-producing organisms are found in the atmosphere of any ward or room, it is no proof whatsoever that this is a method of infection. To substantiate any such claim, it would be necessary to infect by inoculation with such contaminated air, excluding other sources of contagion.

On the other hand, there is much convincing practical evidence from infectious disease hospitals in France, England, and the United States that, while air infection may take place, it is not the usual mode of infection and is probably rare. This evidence will be discussed in the next paper.

### THE MUNICIPAL CONTAGIOUS DISEASE HOSPITAL OF THE CITY OF CHICAGO\*

#### **A Thorough Surgical Technique Used in the Isolation of Communicable Diseases—Standing Orders Stringently Enforced—Freedom From Cross-Infections Proof of Effectiveness**

BY MARGARET J. ROBINSON, R.N., FIELD EDITOR OF THE MODERN HOSPITAL, CHICAGO

**I**T would seem to the average hospital observer that a complete surgical technique is the absolute defense in all isolation of communicable diseases, that an aseptic conscience should be the first requirement made by the isolation hospital of each doctor, nurse, and employee who lives in it, and as the law of the Medes and Persians should be their daily routine. With this defense and technique complete and made "fool-proof," we may have sight and sound and intimate knowledge of those near and dear to us even when some vicious infection has made them incommunicado with the rest of the world.

The Municipal Contagious Disease Hospital of the City of Chicago is using an isolation technique which has proved its thoroughness by the comparatively small number of cross-infections and by the freedom of its nurses and employees from first infectious contracted while on duty.

The routine of standing orders is carried out religiously; each nurse or employee entering the institution is carefully instructed and given the typed rules to have and to read, and each one then knows that the first wilful error in technique means a warning, and that the second means dismissal without further notice.

The rules for the admission of patients are

clearly stated in the following, as are also the rules and instructions for the maids who do the house-cleaning of both clean and infected areas:

#### ADMISSION OF PATIENTS

"The ambulance attendant places the admission slips upon the desk in the corridor, then places the patient upon the cart, over which a sheet is thrown which covers the top and handles. If more than one patient is brought at the same time, the other or others are placed upon the bed. The nurse first telephones to the office for the locker numbers for patient's clothes. She then enters the date, hour of admittance, name of patient, name of receiving physician, number of case, and her own name in the receiving register; stamps the case number, date, number of receiving physician on both the original and duplicate admission slips, and writes the locker number on the original slip.

"The nurse then places upon the bedside table a culture box marked with patient's name and date, slide with patient's name (if patient is a girl under fifteen years of age, two slides are prepared), tongue-depressor and throat swabs. A muslin square is placed upon the floor. The nurse then puts on a clean gown, covers the patient with a second sheet, removes the patient's clothing, placing it on the muslin square, and takes temperature, pulse, and respiration. The thermometer is washed with soap and water before returning to jar.

"Vaginal smears are obtained from all girls under fifteen years of age, and note is made of any vaginal discharge. She then washes her hands, removes gown, folding it clean side out, washes hands again, records temperature, pulse, and respiration on reverse side of both admission slips, lists patient's clothes in duplicate, making note of valuables by writing "none" or "yes," and locker number; the original is placed on the hook in the corridor and the duplicate is placed in the bundle. The

\*This article was written by Miss Robinson for THE MODERN HOSPITAL before she took up her duties with the American Red Cross last September. The next issue of THE MODERN HOSPITAL will contain a paper by Miss Robinson based on her experiences abroad, where she is still in service.

muslin square is tied securely, and a tag bearing patient's name and locker number is placed on bundle, which may be left on floor until collected. Money, jewelry, and all other articles of value that are assigned to the vault shall be recorded in the following manner: Place the clasp envelope in the record book underneath the thin sheet, insert one carbon paper between the envelope and the thin sheet, write everything called for on record sheet, and sign your name where it says "Received by." Do not fail to have patient sign also. Tear off the two copies and take the valuables and the sheets to the head nurse on the first floor, who will sign for same on the original copy of the blanks. The sheets are numbered consecutively, and all must be accounted for. If a sheet is spoiled it should not be destroyed but should be marked 'Void' and sent with the others. The patient is then reported to the office as ready for the admitting physician.

"After the receiving-room examination is completed, the diagnosis, condition, complications, and physician's signature are written on the reverse side of both admission slips; the original is placed on hook in corridor.

"After the diagnosis is made, the floor is notified so that a bed may be prepared. The nurse again puts on the gown, gives a tub or sponge bath, examines head for pediculi, tincture of larkspur being applied if necessary. The nurse then washes her hands, removes gown, folding it wrong side out, again washes her hands, places the chart and duplicate admission slip under the pillow of the cart, which is uninfected, and then, without touching the patient or allowing him to touch anything en route, the patient is wheeled by the nurse to the floor, being removed from the cart by the floor nurse, the sheets remaining with the patient. The nurse then returns the cart, which is uninfected, to the receiving room. She receives from floor sheets to replace those left with patient.

"On returning to the receiving room with the cart, which is left in the corridor until the room is cleaned, the nurse again puts on her gown, places in the laundry bag any linen which is infected, including the covers on the tables, if they have been accidentally infected, the sheets covering the bed if the latter was used, etc. The bathtub or basin stand, soap dish, comb and brush, bed, chairs and cart top, if infected, are cleansed with soap and water or lysol solution. The stethoscope, tincture larkspur bottle, and any other infected articles are immersed in lysol solution. The nurse then removes her gown, placing it in the soiled linen can, washes her hands, returns the cart to the room, covering it and the bed with a clean sheet, and leaves the room ready to receive the next patient.

"The receiving room is an uninfected area, and infection must be confined to the cart sheets, bed, bath basin or tub, and muslin square containing patient's clothes. After handling the patient or his belongings, nothing in the room should be touched without first washing the hands. Clean gowns for both physician and nurse are used each time patients are received. Do not use the hanging portion of the cart sheet to cover the patient, but use a second sheet. Remember that the original admission slips and clothes lists are sent to the office without being fumigated and should not be infected, also that the elevator buttons and doors should be free from infection. The same desk, telephone and supply locker are used for both scarlet fever and diphtheria patients and should be touched only with clean hands.

"The conscientious observance of technique is necessary not only to prevent the spread of infection from patient to patient, but to insure employees against contracting infection from patients."

#### RULES FOR CORRIDOR MAIDS

"Sweep N. C. cubicles, dressing room, nurses' corridor, rear corridor, rear bath room, store room and Ward B, each day.

"Scrub two or more cubicles and rear rooms with tile floors each day, alternating, so that all are scrubbed once a week.

"Mop nurses' corridor each day, scrub every other day.

"Change water for each cubicle.

"Clean cubicle glass and frame.

"Clean glass shelves every day.

"Clean radiators with brush.

"Keep corners clean.

"Clean hoppers each day.

"Move beds by taking hold under the spring.

"Do not wait on patients or handle anything belonging to patients.

"Take but a small space at a time when mopping or scrubbing and dry thoroughly.

"Dust to be taken up in cubicle and not swept into corridor.

"Do not put cans, etc., on hopper or shelves. When cleaning keep everything on the floor.

"Mop and cleaning rag to be cleaned and rinsed thoroughly each night, and left ready for use next morning.

"Supplies are to be gotten at 7 a. m.

"Do not leave the floor for any reason without permission from the head nurse.

"Change house dress for hospital dress in rear room when reporting for work. Keep hair covered. When going to meals or from work scrub hands and face and change hospital dress for house dress.

"Refuse to be put into large garbage can in rear corridor.

"When ill or off duty for any reason, report to head nurse.

"Report for work at head nurse's desk each morning at 7 a. m. and at 4 p. m. when leaving.

"Maids leaving floors before hours or coming late are subject to dismissal."

The nurses employed are graduates and the positions are civil service; the corridor maids are largely colored help and are paid enough to guarantee against frequent changes in that part of the service. That soap and water supported by sufficient elbow and hand mechanism are the very best and surest disinfectants possible has been proved by the best methods of isolation technique. Lysol—and that only in small amount daily—is used in this hospital and then only in cross-infection or where separate or unusual isolation is needed in a room which does not have its own hopper and running hot and cold water.

At the Chicago Municipal Contagious Disease Hospital, the dead lines between the clean and infected areas are clearly marked, and their defense becomes mechanical and a habit to the doctors and nurses and to the employees of even fair intelligence. Corridors, dressing rooms, service rooms, and kitchens are regarded as clean areas.

The superintendent of nurses feels that each contagious hospital must not only follow the general technique now considered to be standard for

## THE MODERN HOSPITAL

isolation, and believed from experience and laboratory findings to be up to date, but that each new hospital of this kind must work out its own special salvation according to its construction and working conditions, and many of the methods used in the hospital are the result of the work and experiments of the medical superintendent and of the resident physicians.

Probably, to the average lay mind, the most important factor in the protection of the public against the great amount of infection which they know must exist in a hospital for contagion is the connecting link between the infected patient and

the outside world, that is, the doctor, nurse, or employee who goes into the hospital and comes out of it again. At this hospital, this is thoroughly provided against, and the rules for the prevention of carriers are rigidly enforced.

The isolation of the detention cubicles is thorough, the method of handling clean food, infected dishes, and garbage is carefully worked out, and the handling of the laundry problems—with its distinctly clean areas protected from contact by walls, separate equipment, and employees—has proved successful in the end-result of the hospital records.

## CONVERTING A DEPARTMENT STORE INTO A HOSPITAL

### **Novel Problems Presented to Army Architects in Turning the Greenhut Building into United States Debarkation Hospital No. 3—How the Question of Light and Air was Met—Extensive Laboratory Work and Weekly Newspaper**

BY OUR NEW YORK CORRESPONDENT

**W**HEN it was announced that the Greenhut Buildings, reaching from Eighteenth to Nineteenth Street on Sixth Avenue, New York,

had been taken over by the Government for conversion into a hospital, there was an almost universal exclamation, "It will be so noisy!" But it is not. Sitting in the wards facing west, one sees the cars on the elevated tracks passing before he is aware of the existence of an elevated railway in the neighborhood.

This question, of course, was only one of the problems involved in converting a building intended for use as a department store into a military hospital. As taken over by the army, the building was merely a hull with floor and twenty-six elevators in it. That is one good point. Probably no other hospital in the world is quite so rich in elevators, and most of them are good big ones with a capacity of thirty standing or of four litters at one time.

The power plant was also complete. This included eight direct-acting and two straight-line dynamos, with ten boilers generating 1,500 horsepower. If all the boilers were operated at full capacity, which they are not, they would consume 350 tons of coal a week—which they do not—though every foot of the vast building is kept as warm as toast.

The street floor of the Cluett Building, which adjoins the Greenhut Building to the east, reaching through from Eighteenth to Nineteenth Street, is used as a cafeteria for men in uniform and is operated by the Y. M. C. A. One corner of the ground floor is reserved for the office of the architect, Major Charles W. Noble, Q. M. C., who assisted Major S. F. Voorhees, S. C., a New York architect, Captain W. E. Lang, M. C., and Lieu-



Fig. 1. The Greenhut Building, New York City, a department store which has been converted into a hospital for Uncle Sam's wounded.

tenant Russell H. Kettell, S. C., in drawing up the plans for this hospital and for Debarkation Hospital No. 5, which occupies the Grand Central Palace, and which presents very similar problems; he has also superintended the execution of the plans.

The remainder of the eleven stories of the Cluett Building is used as barracks for the medical detachment attached to No. 3, which varies from four hundred to eleven hundred men, and for the escort detachment of from four hundred to eight hundred men and officers. The medical detachment furnishes the orderlies for the hospital, while the escort detachment provides escorts for patients who are sent away to other hospitals.

The Greenhut Building was not erected in accordance with the requirements of modern hospital construction. The entire plot, measuring 184 feet on Sixth Avenue, 510 feet on Eighteenth Street, and 460 feet on Nineteenth Street, was built over with solid floors and without any of the courts which would have been provided in a hospital building. This means that from a theoretical point of view the central portion of the building lacks ventilation, but, by the liberal use of air ducts and exhaust fans and by the use of large instead of small wards, this disadvantage has been to a large extent overcome. This drawback was particularly regretted on account of the need for concentrating the plumbing in the center of the building, as it was feared that the toilets located there might prove offensive. Happily this fear has been dispelled, for there is no odor to betray their presence.

At the eastern end of the Greenhut Building is a driveway into which freight of all kinds can be brought and which provides room for keeping twelve automobile trucks. Patients enter at the Eighteenth Street entrance on the south side of the building and pass at once into a reception room on the right. Here each patient is issued a clinical record slip, made out in triplicate on a typewriter. If he is a litter patient he is taken to the ward at once. Otherwise he strips and is examined thoroughly for contagious diseases and for vermin; a throat culture is taken and he is assigned a ward. His clothes are taken from him and disinfected by steam, all leather goods being disinfected by formaldehyde. The patient himself is scrubbed with soap and a flesh brush, under a hot shower, the temperature of which is regulated by a thermometer. He is dried by two attendants, receiving pajamas, slippers, and bath robe, and is conducted to the ward to which he has been assigned. Patients afflicted with vermin are shaved, scrubbed, and anointed with oil to kill



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Fig. 2. The mess sergeant realizes that his work does not end with the dispensing of food. He wanders about the tables assisting the badly wounded who are unable to help themselves.

any vermin which may not have been removed by other procedures.

The western half of the main floor is devoted to the reception rooms for visitors and to the Y. M. C. A. theatre, which has a regular stage, a boxing ring, and seats in tiers for an audience of eight hundred patients. Here the patients are entertained by professional actors and musicians, whole companies of whom volunteer for this service. On the Sixth Avenue side visitors are admitted during certain hours. A large force of Y. M. C. A. workers receives these visitors, locates the patient by means of alphabetical directories, and brings him down to the reception room, or, if he is unable to walk, takes the visitor to his bedside. This, it can be seen, is a tremendous task, as the average number of visitors received in one day ranges from sixteen hundred to two thousand.

This floor also provides room for the publication office of *Come-Back*, a very ambitious weekly newspaper, published in the interest of the patients. The circulation of this paper has run as high as forty thousand on one issue. The plan of the main floor is shown on page 250.

The executive offices are located on the mezzanine gallery on the north side of the building, and

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Fig. 3. The wounded men are entertained by their companion in the sun parlor.

here the commanding officer, Major W. J. Monaghan, M. C., who before the war was engaged in private practice in Girardville, Pa., can be found with his finger on the pulse of the institution. The western half of the second floor is devoted to wards, while the eastern half is occupied by the mess hall and kitchen; the latter is one of the

and four low-pressure steam cookers. One of the most modern electrically driven kitchen machines has been installed, with attachments for mixing dough, grinding meat, whipping cream, etc. The kitchen is also provided with a mechanical potato-peeler which has a capacity of twelve barrels an hour and which is so economical in its work that, if worked at full capacity, it will save enough potatoes to pay its cost of \$640 in six weeks.

One corner of the kitchen is set apart as a diet kitchen, where the dietitian prepares any special diet that may be ordered for special patients. Fortunately, the large majority of the patients who are received at this hospital are far on the road to recovery and can eat and digest the regular fare.

The meals are served on the cafeteria system. A large serving table, fitted out with steam bath, is provided, with rectangular covered metal containers 22 inches long, 14 inches wide, and 18 inches deep. From these the men are served. This steam table and serving counter is at the western side of the kitchen and on the eastern side of the dining room. This room, which seats two thousand patients, is entered from the center of the building by doors leading into an 8-foot

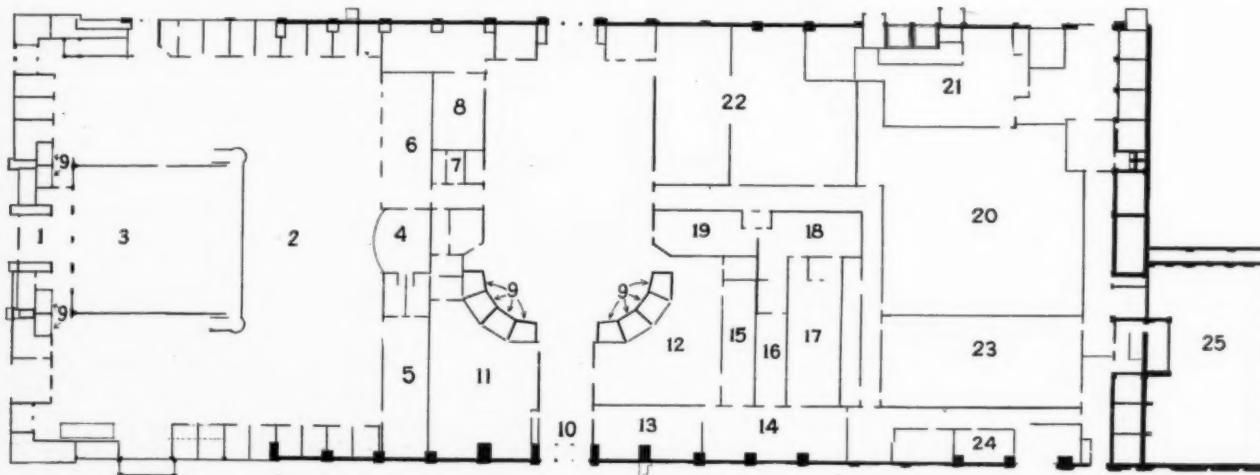


Fig. 4. Plan of the main floor of Debarkation Hospital No. 3.

- 1. Entrance.
- 2. Red Cross reception room for visitors.
- 3. Red Cross bureau of information.
- 4. Stage.
- 5. American Library Association.

- 6. Billiards.
- 7. Chaplain's office.
- 8. Officers' locker room.
- 9. Elevators.
- 10. Main entrance.
- 11. Nurses' locker room.
- 12. Receiving.

- 13. Office.
- 14. Examination.
- 15. Undressing.
- 16. Delousing.
- 17. Clothing.
- 18. Showers.
- 19. Dressing.

- 20. Patients' effects.
- 21. Guard room.
- 22. Waiting room.
- 23. Hospital corps.
- 24. Postoffice.
- 25. Garage.

largest and most complete to be found in the city of New York.

The kitchen occupies the eastern side of the building, covering an area of 48 by 85 feet. It is provided with six 60-gallon steam-jacketed soup kettles, six 60-gallon coffee urns, all of aluminum, 140 running feet of heavy duty gas ranges, eight steam cookers which carry 350 pounds pressure,

passage railed off from the rest of the room. This railed passage leads to the serving counter, where the diners divide, one lot going north and one south. As they pass down this counter, each soldier picks up a tin tray, an agate mug and plate, knife, fork, and spoon. He passes along the counter, receiving bread and butter, food, and coffee, and finds a seat for himself at the plain deal ta-

bles. The tops of these tables are removable and each of the three planks constituting the top is washed on all four faces every day. At the conclusion of the meal the soldiers deposit their dishes in one of the two wash rooms which are located in the center of the room. Here the dishes

of course. The patient had never at any time had any pain, not even a headache, though he lost the sight—but not the eye—and the hearing on one side. The wound was received in the Argonne forest, and the patient was unconscious for thirty-six hours afterwards.

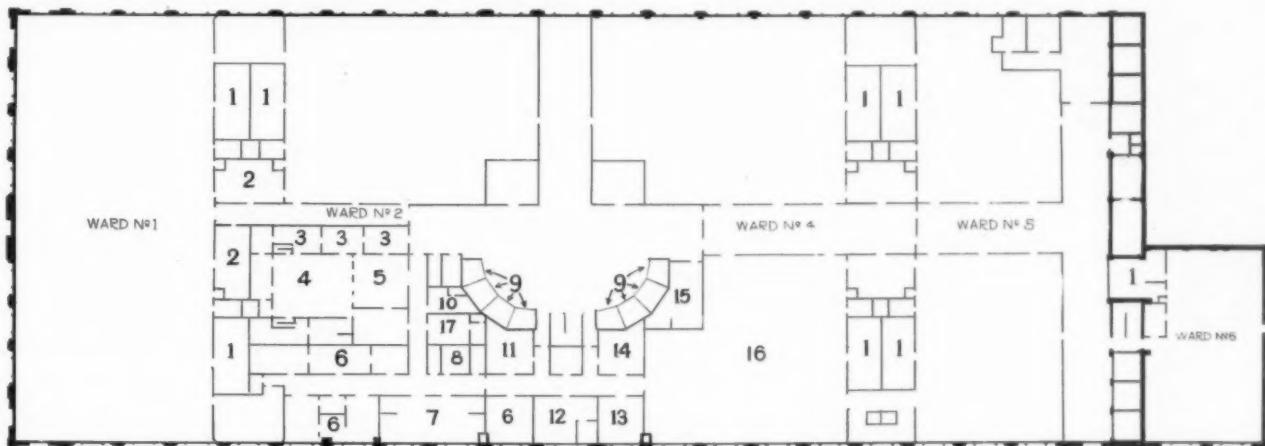


Fig. 5. Plan of third floor, which is typical of remaining ward floors.

1. Toilet.	6. Surgical-dressing-operating.	10. Nurses' room.	14. Eye clinic.
2. Serving.	7. Recovery ward.	11. Waiting.	15. Dispensary.
3. Fluoroscopic.	8. Diet kitchen.	12. Dentists.	16. Acute surgical ward.
4. Radiographic.	9. Elevator.	13. Ear-Nose-Throat.	17. Officers' room.
5. Waiting.			

are washed and dried by machinery. Patients who are unable to wait on themselves are seated at special tables where their meals are served to them. For bedridden patients a special carrier has been devised into which four of the covered food-containers which are used at the serving counter fit. These are set in a kind of a fireless cooker, which can be kept hot if desired by placing heated irons or soap stones in it. In practice this is found to be unnecessary, the heat of the food being sufficient. These carriers are mounted on small wheels and are wheeled through the wards to the bedside of the patient. From a practical point of view they have been found superior to the forms of food-carriers in general use in hospitals on account of the simplicity of their construction.

The southern or Eighteenth Street side of the third floor contains the operating room, the dental room with two chairs, and a very complete and well-equipped x-ray room, where an extremely interesting collection of x-rays has been made and forwarded to Washington for permanent preservation. One of these showed a piece of shrapnel in a patient's heart, which he still carried there when he left the hospital. Another x-ray showed where a bullet  $1\frac{1}{4}$  inches long had entered the skull to the right of the orbit of the right eye, crashed its way through, broadside on, and brought up against the right mastoid. This was removed through the mastoid, under anesthesia,

The remaining floors are devoted to wards and conform in general layout to the floor plan shown on another page. The architect had at first proposed to lay them out in wards containing twenty-five beds, the standard size ward, but this was changed on the ground that the institution was merely an evacuation hospital, not one for treatment, except incidentally, and that the patients who came were, for the most part, well on the way to recovery and required little if any treatment.

As will be seen by consulting the diagram, all



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Fig. 6. The theater in which the boys find much pleasure. Their nonchalance of attitude indicates that they feel at home.

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the service is concentrated in the center. Here there are a linen room, a nurses' room, bath and toilet rooms, and a service room with a pantry for each ward. By concentrating all these service rooms in the center, it became possible to give the patients the benefit of the light on all three sides of the building. Practically the entire three sides of the building consists of glass—there are 58,198 square feet of glass windows—so that, notwithstanding the lack of any central court, the floors are all well lighted. This arrangement also makes it possible to get the best results from the artificial system of ventilation, which consists of air ducts through which the air is drawn off by powerful electrically driven fans.

On each of the three floors there is one ward on the eastern side completely walled off, which provides fifty beds for the isolation of contagious diseases. So far there has, fortunately, been but little need for these isolation wards.

The dispensary is a room measuring about 20 by 30 feet, located in the center of the fourth floor, and gives employment to three pharmacists and three orderlies. All medicines are ordered on regular prescription blanks, which are brought to the dispensary and are called for by the ward orderlies.

The clinical work of the hospital is done in the laboratory of the port of embarkation, located in pent houses on the roof of the building under

command of Major E. H. Schorer, M. C. Not only does the laboratory do all the work for this particular hospital, but it acts as a department laboratory for all the laboratories, some eight in number, under Colonel Kennedy's jurisdiction. This means that Major Schorer keeps a reserve of laboratory supplies, which can be drawn on by other laboratories in an emergency, and it means also that he handles the overflow when any of the other laboratories happen to be unduly taxed.

Probably for the first time in any military hospital the examination of a throat culture for diphtheria is made of every incoming patient. Routine examination of feces is also proposed and many thousands of such examinations have been made, while a large room in one corner of the laboratory is given over to an extensive research into the nature and occurrence of intestinal parasites.

Wassermann tests are made where the necessity is indicated and pathological specimens are examined; the mounted slides are eventually forwarded to the Army Medical Museum at Washington for preservation as part of the clinical history of the patient.

An animal house on one corner of the roof affords room for quite a colony of rabbits, guinea pigs, and mice for laboratory use.

The staff of the laboratory varies from time to time, but usually embraces four officers, seven women technicians, four clerks, and twelve non-commissioned officers and enlisted men.

The hospital boasts a post exchange, located in the basement, where a rushing business is done in tobacco products, ice cream, crackers, candy, and soft drinks. A barber shop with five barbers in attendance and a tailor shop with two pressing machines forms part of the post exchange.

The basement also houses the sterilizing plants, both steam and formaldehyde, and the linen room, the latter a huge institution. Each ward is furnished and charged with two complete changes of linen for every bed. That not in use is kept in the ward linen room on the same floor as the ward.

The main linen room exchanges fresh linen for soiled at any time without any requisition or papers, but the issue of additional linen is only made on formal requisition.

The office of the chief nurse, Miss Leary, is on the third floor. She has from one hundred to three hundred nurses under her direction, according to the number of patients in the hospital, which varies daily. The nurses are housed and given two meals a day at the Trowmart Inn on Abingdon Square, which has been taken over for



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Fig. 7. Entertainment and occupation for the wounded doughboy.

this purpose by the army. One meal a day is furnished them at the hospital.

One very attractive feature of the building is a glass covered conservatory on the roof, with more than four thousand square feet of floor space, which is used as a recreation room and sun parlor. Both patients and attendants are given free access to this commodious room, which is provided with a player piano, a phonograph, a collection of reading matter for the entertainment of the patients, comfortable chairs and couches, statuary, and a little grove of potted plants.

The problems met in converting the Grand Central Palace at Forty-seventh Street and Lexington Avenue into Debarkation Hospital No. 5 were much the same as those met in the Greenhut Building. The former building has the advantage of standing entirely alone and of covering a somewhat smaller area, thus giving better light and ventilation. This hospital, which received the first patients on Christmas day, has a capacity of 3,400 beds.



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Fig. 8. One of the spacious wards in this department store hospital.

## LIVING-OUT VERSUS LIVING-IN FOR THE HOSPITAL EMPLOYEE

### The Convenience of Either Plan Depends Upon the Class of Employees and Local Conditions—Economy and Personal Desirability the Main Factors to Consider

BY L. R. CURTIS, VICE-PRESIDENT OF ST. LUKE'S HOSPITAL, CHICAGO.

**W**E may without doubt start with the understanding that it is necessary for all nurses, all training school officers, and at least a considerable portion of the physicians performing intern service to live in.

The wisdom of having the various other classes of employees live in depends in a measure on whether or not the institution has available space and a proper recognition of the degree of comfort which the employee may reasonably expect. Years ago—and even now the same thing may possibly be true in some institutions—the accommodations offered were so poor as to make it almost impossible to secure and retain even passably efficient employees. In a sense, the room which the employee occupies is his or her home, and in this day something more than enough floor space for a bed in a room occupied by several others is necessary. I might add that old and decrepit furniture which has passed all usefulness elsewhere does not improve the appearance or the comfort of the employees' quarters. The food question, always a troublesome problem where many employees are fed, also deserves consideration. While the coarser portions of meats

and other foods will properly find their way to the employees' table, in nearly every institution a vast improvement may be effected by better planning of meals and more care in the preparation and service of the food. A small expenditure to secure a little more variety will also help. Furthermore, the employees' dining room is too often a most forlorn-looking place.

Another thing which must be considered is the fact that in order to make conditions acceptable to those living in, it is necessary to segregate them into three groups, both as to rooms and as to food service. It is also necessary to have some supervision of employees off duty while they are on the premises.

Assuming that the institution has the facilities and the inclination to provide a reasonably comfortable living for its employees, the question, "Does it pay?" next presents itself.

As a premise in any discussion we may accept as a fact the understanding that few, if any, of your employees will value what is received in the way of maintenance at anything like its cost to the institution. If you will carefully charge your employees' maintenance account with all which is

## THE MODERN HOSPITAL

properly chargeable to it, you will probably be surprised. It is likely, however, that it always pays to furnish food for enough employees to consume the less desirable portions of food which you can hardly help purchasing and yet find difficult to use profitably in any other way.

Once the matter of maintenance has been settled, the problem resolves itself into the question of which employees should live in and which should not. I will endeavor to classify them and name some of the more obvious points pro and con the question of living in.

*Office Employees*—While it may pay to furnish lunches to them, or even all three meals, it does not pay to have them live in. The objections are that it does not reduce your cash payroll; it practically limits you to unmarried people in your office, and these people have a decided objection to the restrictions of life in a hospital.

*Heads of Departments*—As a matter of convenience, it is usually desirable to have all female heads live in. The men, however, as a rule are married and wish to live at home.

*Ward Maids, Waitresses, and Kitchen Employees*—It is almost essential that all of these should live in. It is usual for this class in institutions, hotels, clubs, and families, to receive maintenance, and they expect it. Their more or less irregular hours of duty do not permit living outside without great inconvenience. Even though it should not be agreed that meals shall be furnished, the institution would find that it was furnishing practically all the food of those employees who come into contact with cooked food supplies.

*Laundry Employees*—I doubt whether in a hospital located in a large city it is every profitable to furnish either room or board to this class of employee. The public laundries furnish neither, and they set a scale of wages which must be met in order to have efficient help. For these workers to live in would result in no decrease in cash payments commensurate with the cost of their maintenance.

*Engineers, Firemen and Repair Men*—It is rarely advisable to have these men live in. The better men are usually members of unions, and unions are opposed to any other than cash wages. Married men are usually more steady and reliable than single men, and the married man does not want to live in.

*Porters, Janitors, Window-Washers, and All Rough Labor*—This class presents the greatest problem. They are unquestionably under better control if they live in. On the other hand, unless their quarters are isolated, they are especially undesirable to have about when they are off duty.

The foregoing views are based on the conditions of the last few years in the larger cities. An unusual location might change the whole aspect of certain phases of the subject.

We should recognize the change which has taken place in the mental attitude of working people in the recent past. There is a greater feeling of independence, and there is no doubt that the rank and file are much better satisfied when they have definite working hours, payment in cash, and a complete disassociation of work and living conditions. We may perhaps argue that we can afford to furnish and do furnish better food and habitation than they can afford to provide for themselves, but the sentiment is strong that they want to live where they please and as they please, free from the employer's restrictions.

### THE CALL OF THE NORTH

**A Work of Humanity Among the Deep-Sea Fishers—  
Nobility of a Service That Offers the Heart  
As Well As the Hand**

For eight weeks he had been lying in the frozen regions of the north, this young skipper of the salmon schooner, suffering with chronic trouble in his spine and waiting for the help that only a hospital can give. He is now in the little hospital at St. Anthony, and the ice-filled harbors and hillsides of glass make it probable that the little world of his wife and children will be barred from him until next June.

So writes Dr. Wilfred T. Grenfell, of the Grenfell Association of America, 156 Fifth Avenue, New York, in telling of his effort to organize a new hospital center at Pilley's Island. The little mobile unit now stationed at that point is most helpless and inadequate for the continual demands made upon it. Often, as early as 8 a. m., anxious patients in the clinic await "the blessings of the knife," while the stillness of the night is broken by the screech of the special motor boat whistle announcing the arrival of a patient who hopefully seeks relief from the tortures of physical pain. The work of the unit among these people of the far North has grown so rapidly that further progress is now practically dependent upon additional facilities—an x-ray room, a biological laboratory, an assistant resident doctor, and two trained nurses.

But the crying need of the moment is for men. Grenfell needs—and needs urgently—the help of at least two young, strong, able doctors, with the love of God and their fellowmen in their hearts. They must be big men, broad-minded and generous—men whose highest ideal is the pure service of unselfishness, and men who will continue to give willingly in spite of the fact that their earthly reward may not present itself in the form of dollars and dimes. Two returned soldiers, unless hopelessly crippled, could fill the vacancies. Crippled bodies can often do wonders when the soul within is unscarred, and hearts mellowed by the sympathy of suffering can be the inspiration for noble and worthy deeds. If the keen joy of service, for the privilege of which our heroes sacrificed their very all, has proved an end worth while in human life, Pilley's Island offers an opportunity to taste it to the full, with the added attraction of a healthy existence, congenial companionship, and a scope for every talent possessed.

## HOSPITAL ACCOUNTING

**Loans and Notes Payable Book, Income Ledger, and Balance Sheet Described—  
Treasurer's Trial Balance and Balance Sheet—Systems of Accounting  
for Use in Hospitals Which Use Only One Set of Books**

By CHARLES A. PORTER AND HERBERT K. CARTER OF THE STAFF OF THE MODERN HOSPITAL

[Continued from March issue, p. 181]

**LOANS AND NOTES PAYABLE BOOK**

The Loans and Notes Payable Book is sometimes called the Bill Book, and it is used merely to keep a record of all loans and notes, showing makers, date when due, rate of interest, etc. These records should be kept on standard forms suitable for this purpose, which may be purchased at any stationer's.

**THE INCOME LEDGER**

The Income Ledger is a subsidiary of the General Ledger and its relation to it is the same as that of the Bill Book to the Superintendent's General Ledger.

In this book individual accounts are kept with each kind and issue of bonds, stocks, mortgages, and properties owned for investment purposes in

order to show a complete accounting of the principal, income, and expense of each class of securities.

As many of these securities are a part of the endowment of a certain specific fund, it will be necessary to keep ledger accounts with each fund separately; by this means the monthly income may always be ascertained for any particular fund.

The income as it accrues is posted to its proper account from the Treasurer's Cash Book if paid, or by Journal entries if unpaid. This procedure is explained in the example under Treasurer's Journal entries.

These accounts are posted to one General Ledger account only from the Cash Book and entered from there to the Treasurer's Balance Sheet in total, or listed for an exhibit, if desired.

**INCOME LEDGER**

**GENERAL ENDOWMENT FUND**  
*Bond Accounts*

Name of issue.....	Payable at.....	Principal due.....	Rate of interest.....	Dates.....
--------------------	-----------------	--------------------	-----------------------	------------

DR.							Cr.
Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	No. shares at (price) purchased..	C. B.	\$.....	.....	Interest for (time).....	C. B.	\$.....
.....	No. shares at (price) purchased..	C. B.	.....	.....	Interest for (time).....	C. B.	.....
.....	*No. shares at (price) sales.....	C. B.	.....	.....	Interest for (time).....	C. B.	.....
.....	Profit on sales.....	C. B.	.....	.....	Interest for (time).....	C. B.	.....

\*This entry should be made in red ink.

The difference between the black figures and the market prices equals increase or decrease of value for the month.

Bonds should not be revalued every month. The value should remain constant on the books unless a sale is made.

Journal entry 8 should show how this profit is to be cared for.

Stocks are entered in the same manner as bonds accounts, as shown below.

*Stock Accounts*

Name of issue.....	Payable at.....	Principal due.....	Rate of interest.....	Dates.....
--------------------	-----------------	--------------------	-----------------------	------------

## THE MODERN HOSPITAL

DR.							CR.
Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	No shares at (value) donated...	Jour.	\$.....	.....	Dividend No. 32.....		\$.....
.....	*No. shares sold (value) as per Cash Book.....	C. B.	.....	.....	Dividend No.....		.....
.....	Profit on sales.....	C. B.	.....	.....	Dividend No.....		.....

\*This entry should be made in red ink.

## MORTGAGES RECEIVABLE

First mortgage on (property)..... Located at (street).....  
 (city), (state)..... Owned by (name)..... (address).....  
 and made (date)..... Principal (amount).....  
 Rate of interest..... Payable at (give details).....  
 By (firm)..... Located at .....

DR.							CR.
Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Bought at par and interest.....		\$.....	.....	(Time) interest, at percent.....		\$.....
.....	Paid in full.....		.....	.....	(Time) interest, at percent.....		.....
			\$.....				\$.....

## REAL ESTATE ACCOUNT

Description ..... Located at (Street, city, state).....  
 Rented to..... For period from ..... to .....  
 Rate ..... per annum. Remarks.....

DR.							CR.
Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Donation.....	Jour.	\$.....	.....	Rent.....	C. C.	\$.....
.....	Sale.....	C. B.	.....	.....	Repairs.....	C. B.	.....
.....	Loss on sales.....	Jour.	.....	.....	Taxes.....	C. B.	.....
				.....	Insurance.....	C. B.	.....

Expenditures are shown in red and are debited to income instead of to corporation expense.

## GENERAL ENDOWMENT FUND—(See General Ledger Account)

Investments assigned to this fund are as listed below:

DR.							CR.
Date	Item	Folio	Amount	Date	Item	Folio	Amount
.....	Mortgages received.....	I. C.	\$.....	.....	Interest.....	C. B.	\$.....
.....	Bonds received.....	I. C.	.....	.....	Interest.....	C. B.	.....
.....	Stocks received.....	I. C.	.....	.....	Dividends.....	C. B.	.....
.....	Stocks sold *.....	I. C.	.....	.....	Dividends.....	C. B.	.....

\*These sales appear in red. The difference between the red and black figures equal the amount of securities held in this fund. The income from this fund is posted direct to this account from the Treasurer's Cash Book, and should agree with income posted from Cash Book to the Treasurer's account with this fund.

## THE BALANCE SHEET

Schedules should be made out in support of the main items appearing on the Balance Sheet, such as notes and accounts receivable, inventory, real estate, investments, bonded indebtedness, and insurance. These should be presented by the Audi-

tor to the Board of Managers, but need not be printed in the annual report.

## TREASURER'S TRIAL BALANCE AND BALANCE SHEET

The Treasurer's Trial Balance is taken off at the end of each month, and is a transcript of the

footings of each of the accounts in his General Ledger that are not closed into the surplus and deficit account, and from this the Balance Sheet is made. The surplus and deficit account forms a part of the Balance Sheet. A fault which is commonly found is that of calling the Balance Sheet a Trial Balance.

#### HOSPITALS USING ONE SET OF BOOKS

There have been described in detail the average books and accounts necessary for a hospital.

having one set of books for the Superintendent and another for the Treasurer.

Many institutions will need to keep but one set of books, thereby eliminating much work in handling their accounts. One Journal, one Cash Book, and one General Ledger need be kept in this case. It eliminates the Superintendent's account with the Treasurer, as the items appearing therein are posted direct to surplus and deficit or other accounts, as indicated by the Journal entries below. The Journal entries would then be:

1			
Surplus and deficit account.....	Dr. \$.....	Cr. \$.....	
Accounts receivable.....			
For uncollectable accounts receivable charged off during the month.			
2			
Overpayments by patients.....	Dr. \$.....	Cr. \$.....	
Hospital earnings.....			
For accumulated unclaimed overpayments by patients transferred to hospital earnings.			
3			
Material.....	Dr. \$.....	Cr. \$.....	
Surplus and deficit.....			
For surplus amount of material found by inventory above that shown by the material account.			
4			
Surplus and deficit.....	Dr. \$.....	Cr. \$.....	
Material.....			
Loss or depreciation of material as shown by inventory not to be on hand as per material account.			
5			
Hospital earnings.....	Dr. \$.....	Cr. \$.....	
Unclaimed wages.....			
For accumulated unclaimed wages transferred to hospital earnings.			
6			
Surplus and deficit account.....	Dr. \$.....	Cr. \$.....	
Hospital earnings.....			
This account should be balanced monthly by transferring hospital earnings to surplus and deficit account.			
7			
Surplus and deficit account.....	Dr. \$.....	Cr. \$.....	
Accounts payable.....			
Grand total of current expenses for month as shown by Charge Register.....			\$.....
8			
Grand total current revenue for month consisting of:			
Hospital earnings.....	Dr. \$.....		
Donations, unrestricted.....	Dr. \$.....		
Legacies.....	Dr. \$.....		
Income from investments held in Endowed Bed Fund.....	Dr. \$.....		
General Endowment Fund.....	Dr. \$.....		
Special funds (enumerate).....	Dr. \$.....		
The income of which is to be used to meet current expense.			
Income from unrestricted investments.....	Dr. \$.....		
Appropriations from special funds to meet current expense.....	Dr. \$.....		
And any other accounts composing grand total current revenue for the month.....	Dr. \$.....		
Surplus and deficit account.....	Cr. \$.....		
Other entries noted under the Treasurer's Journal and numbered 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 18 will be made as per those examples.			
The Cash Book will consist of the General Cash			
Books, Patients' Cash and Receipt Books, and Combination Cash and Check Books. An extra column should be used on the debit side for income and another for donations.			

## THE MODERN HOSPITAL

The same Charge Register will be used. Pay Patients' Ledger, General Ledger, Income Ledger, Endowed Bed Ledger, and Notes and Loans Payable Book will be kept. The principal change in the General Ledger will be the omission of the Treasurer's account with the Superintend-

ent and the addition of Pay Patients' Accounts Receivable.

The smaller hospitals and private hospitals will not need to keep an Endowed Bed Ledger or an Income Ledger, but can keep the necessary accounts in the General Ledger.

SCHEDULE 1—STATEMENT OF CORPORATION, OPERATING AND OTHER CURRENT EXPENSES OF THE MODERN HOSPITAL.

	1	Present year	Last year
<i>Corporation expenses:</i>			
Salaries.....	\$.....	\$.....	
Stationery, printing and postage.....	.....	.....	
Telephone and telegraph.....	.....	.....	
Legal expenses.....	.....	.....	
Interest.....	.....	.....	
Taxes.....	.....	.....	
Insurance.....	.....	.....	
Miscellaneous expenses.....	.....	.....	
 Total.....	 \$.....	 \$.....	
 <i>Administration expenses:</i>	2	Present year	Last year
Salaries and wages.....	\$.....	\$.....	
Stationery, printing and postage.....	.....	.....	
Telegraph and telephone.....	.....	.....	
Legal expenses.....	.....	.....	
Furniture and fixtures.....	.....	.....	
Miscellaneous expenses.....	.....	.....	
 Total.....	 \$.....	 \$.....	
 <i>Professional care of patients:</i>	3	Present year	Last year
<i>Salaries—</i>			
Doctors.....	\$.....	\$.....	
Superintendent of Nurses.....	.....	.....	
Head of Nurses.....	.....	.....	
Nurses.....	.....	.....	
Orderlies.....	.....	.....	
Apparatus and instruments.....	.....	.....	
Equipment for nurses and orderlies.....	.....	.....	
Medical supplies.....	.....	.....	
Surgical supplies.....	.....	.....	
<i>Dispensary—</i>			
Salaries and wages.....	.....	.....	
Medical supplies.....	.....	.....	
Surgical supplies.....	.....	.....	
Miscellaneous supplies.....	.....	.....	
<i>Pathological laboratory—</i>			
Salaries.....	.....	.....	
Drugs and chemicals.....	.....	.....	
Miscellaneous.....	.....	.....	
<i>X-ray service—</i>			
Salaries.....	.....	.....	
Plates.....	.....	.....	
Tubes.....	.....	.....	
Miscellaneous.....	.....	.....	
<i>Social service—</i>			
Salaries.....	.....	.....	
Medical supplies.....	.....	.....	
Surgical supplies.....	.....	.....	
Clothing.....	.....	.....	
Miscellaneous.....	.....	.....	
<i>Emergency ward—</i>			
Salaries.....	.....	.....	

## THE MODERN HOSPITAL

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Medical supplies.....		
Surgical supplies.....		
Miscellaneous.....		
Total.....	\$.....	\$.....

4

	Present year	Last year
<i>Departmental expenses:</i>		
Ambulance—		
Wages.....	\$.....	\$.....
Gasoline.....		
Supplies.....		
Repairs.....		
Steward's department—		
Meat, poultry, and fish.....		
Dairy products.....		
Groceries.....		
Fruits and vegetables.....		
Salaries.....		
Miscellaneous.....		
Training school—		
Salaries and wages.....		
Supplies.....		
Miscellaneous.....		
Laundry—		
Salaries and wages.....		
Supplies.....		
Repairs.....		
Housekeeping—		
Salaries and wages.....		
Supplies.....		
Total.....	\$.....	\$.....

5

	Present year	Last year
<i>General house property:</i>		
Heat, light and power—		
Salaries and wages.....	\$.....	\$.....
Fuel.....		
Oil.....		
Waste.....		
Lighting.....		
Repairs.....		
Miscellaneous supplies.....		
Maintenance buildings—		
Labor.....		
Material.....		
Supplies.....		
Miscellaneous.....		
Maintenance Equipment—		
Salaries and wages.....		
Supplies.....		
Insurance and taxes—		
Rent.....		
Miscellaneous.....		
Grand total current expenses.....	\$.....	\$.....

6

*Current expenses from special funds for stated purposes:*

List each separately—

Item.....	\$.....
Item.....	\$.....
Item.....	\$.....
Total.....	\$.....
Excess of current revenue over current expenses surplus for the year.....	\$.....

## THE MODERN HOSPITAL

## SCHEDULE 2

	STATEMENT OF CURRENT REVENUE		1916	1915
Private room patients.....	\$.....		\$.....	
Board special nurses.....				
Board of friends of patients.....				
Ward pay patients.....				
Special nurses.....				
Dispensary.....				
Emergency ward.....				
Ambulance fees.....				
Pathological laboratory.....				
X-ray.....				
Miscellaneous.....				
Total hospital earnings.....	\$.....		\$.....	
	OTHER REVENUE OR INCOME		1916	1915
From the treasury.....	\$.....		\$.....	
Donations from individuals for current expenses.....				
Donations from churches.....				
Donations United Hospital Fund.....				
Receipts from entertainments, etc.....				
Legacies, unrestricted.....				
Income from General Endowment Fund.....				
Income from Endowed Bed Fund.....				
Income from Partially Endowed Bed Funds.....				
Miscellaneous fund incomes.....				
Increase from unrestricted investments.....				
Miscellaneous.....				
Total other revenues or income.....	\$.....		\$.....	

## APPROPRIATIONS FROM SPECIAL FUNDS TO MEET CURRENT EXPENSES

	1916	1915
From fund.....	\$.....	\$.....
Total appropriations from special funds to meet current expenses.....		
Grand total current revenue.....	\$.....	\$.....
Excess of current expenses over current revenue.....		

## SCHEDULE 3

## SURPLUS AND DEFICIT ACCOUNT

	1916	1915	1916	1915
Grand total current expense (No. 1).....	\$.....	\$.....	Grand total current revenue (No. 2).....	\$.....
Capital expenditures—			Real estate.....	
Real estate.....			Buildings, book value.....	
Additions and betterments .....			Equipment sold.....	
Buildings.....			Item.....	
Furniture and fixtures.....			Item.....	
Tools and machinery.....			Item.....	
Apparatus and investments			Profit on above (enumerate).....	
Item.....			Profit on investments sold (enumerate).....	
Item.....			Charged off funds owing to cessation of liability of hospital.....	
Item.....			Insurance.....	
Total capital expenditures.. \$.....		\$.....	Indemnities, etc.....	
Superintendent's bills receiv- able charged off.....			Total.....	\$.....
Treasurer's bills receivable charged off.....			Deficit for the year.....	\$.....
Loss on investments charged off (enumerate).....				
Total.....	\$.....	\$.....		
Surplus for the year.....				
Total.....	\$.....	\$.....		

[To be continued.]

## FROM OUR FIELD EDITORS' NOTEBOOKS

**A Dispensary Which Has Gained the Confidence of Its Patients—Notable Happiness Reflected in Life of Oak Forest Institution****The Emanuel Mandel Memorial Dispensary of the Michael Reese Hospital**

"Not that way, Grossmutter, not that way," said the field dietitian as she darted forward and caught the arm of a little, bent, old woman in a shawl who had started down a staircase in spite of a sign saying, "Do not use this stairway except in case of fire," above it in English and Yiddish lettering. All signs meant for patients in the dispensary have this double lettering, for many of the Jews who throng for treatment to this small, three-storied, brick building in the heart of Chicago's West Side know no language except the Yiddish which they brought with them from abroad.

Miss Joseph laughed and patted the little, old woman on the arm as she steered her to another staircase, for friendliness is the secret of the success of this institution's social service. Among the most interesting of the many phases of this service are the diet clinics which are held every day in the week—one for mothers of undernourished children, one for epileptics, one for diabetics, etc.

This morning eight women were moving about the little kitchen in the diabetes clinic, preparing their own lunch for the day and adding new dishes to the menu which is being built up for them week by week. Nothing is shown them which will be impossible for them to do in their own homes.

Intense practicality is the distinguishing feature of this work. "I don't talk to them about calories," said Miss Joseph. "You can tell them what a calory is, but it has no practical relation to their lives. I talk in terms of teaspoons—and they don't forget." They enjoy the instruction. "Miss Yoseph, she so goot," said one woman. "I weigh fifteen pounds more, and every Wednesday I am so glad and so happy, like I go to a party."

The little sealed bottles containing foodstuffs of different value were another example of the graphic illustration which is used; one bottle contained more than a cupful of corn flakes; another, the same size, only a fourth of a cup of oatmeal—here was a lesson in home economics which even the most newly arrived foreign mother could understand. Food charts in English and Hebrew are another means by which dietetic truths are driven home.

The most important means of instruction, however, is the actual experience obtained in the cooking clinics. The kitchen furnishings are simple, and the utensils are the sort which everyone may own. The lunch on this Wednesday consisted of a meatless soup, cold slaw, codfish in cream, and bran muffins. It was scarcely a task to prepare the food, but something in the nature of a diversion. "Miss Yoseph, she make things taste so goot," said one. Miss Joseph led us to the stove and showed us how the scum was stirred back into the soup—an important source of nourishment, so often wasted. "Miss Joseph, she not waste nothing," said one member with satisfaction.

In addition to the preparation of the actual meals, these women are taught to preserve and can fruits and vegetables. The results of this work stock the shelves of the dispensary.

The scrupulous attention which is paid to the religious and dietetic customs of the members of the clinic is one reason for the strong hold it has on their confidence. The

dietitian, before undertaking the work, studied the Mosaic law, and the dietetic clinic is arranged to serve the most orthodox.

Careful watch is kept of the patient's condition by means of constant weighing and urinalysis, and every patient, no matter how illiterate, is taught to make a crude analysis of her own urine, so that she may report at once if anything is wrong.

The dispensary is supported by the Associated Jewish Charities and is affiliated with the Michael Reese Hospital, from which two-thirds of its entire staff is drawn. The doctors are not paid for the work they do in the clinic, but receive one dollar a call when they are sent out on cases. The dispensary has adopted the wise precaution when a telephone call is received for a doctor of sending a nurse first, who has often saved the doctor an unnecessary visit.

The work of the dispensary is very complete, including medical, dental, genito-urinary, eye, ear, nose, and throat departments, and a very large and well attended clinic for children. There were a number of babies sleeping on the benches where their mothers sat—mothers often very young, some with their native shawls wrapped about them, others in the pearl earrings and straw hats of the new world. In the bigger waiting rooms outside sat shabby, bent, old men, with their long beards between their knees, and young, bright-eyed Jews who looked as if they were only anxious to be through to get back to their American jobs.

The waiting rooms of this dispensary are numerous and well arranged; besides the main one on the first floor containing the admitting and registration desks, there is a big one on each of the two upper floors, and a special one for children and the gynecological patients. The first floor is given up to the administrative offices, and the other two contain the offices of the clinics. There are two clinics a week in each department, but a Monday patient is always a Monday patient, although his clinic is held on Wednesday also. This insures continuous treatment for every patient under one doctor, and prevents the confusion of the patients changing about.

To all except the most destitute a charge is made for dispensary service, and the status of the patient is determined by social workers. The dispensary performs a number of non-medical services for which a charge is made—sells pure milk, soya flour, and saccharine, all at the lowest possible price, but not at a loss. It has, however, one rather quaint charity—a toothbrush and powder fund with which the teeth of the West Side are kept white and shining. Prescriptions also are filled free, and about two hundred and fifty are given out in a day.

The girl at the admission desk also has charge of all the files and records relating to the patients. The number which she stamped on the last card given out was 85155, which means that 85,515 patients have been received since the dispensary moved into its present quarters eight years ago.

Social service is the mainspring of the activity of the dispensary—not as a separate function, but as a contribution to the efficiency of the whole. Patients who should come back are followed up—especially in the genito-urinary department—and no patients are given instructions

## THE MODERN HOSPITAL

without being taught how to follow them. Sometimes this information can be given in special clinics like those of the dietetics department, sometimes it is necessary for the nurse to follow the patient into his home. Every patient who is admitted to the Emanuel Mandel Dispensary is sure that he will receive the attention that he needs, that his customs will be respected, and that all the help and information will be given him which are necessary.

### The Cook County Institutions at Oak Forest

The faces of the patients whom one meets in the corridors or sees in the wards and rooms at Oak Forest are notably contented and cheerful—even happy. Mr. H. L. Bailey, the general superintendent, believes in discipline but not in the cold, institutional formality which so often

to work is given employment. The man who can not use his legs has work at which he may remain seated; the man who has only one arm is given work which requires the use of only one arm; selected epileptic, feeble-minded, and aged patients are used in the various farming operations. The tuberculosis patients are given graduated exercise under medical direction. Oddly enough, a man unable to stand on his feet makes (by means of a wheel chair) a very useful messenger. The men on the farm take a great deal of pride in their work, I was told, each trying to outdo the other and prove that his cabbages or carrots, his chickens or pigs, are better than the other fellow's.

The possession of a large farm and the employment of patient labor enable Cook County to provide generous fare for its wards (there are about thirty-five hundred patients) and still to defy the H. C. of L. The Oak Forest institutions have bought no canned goods for three years. I was shown a storeroom containing something like twenty-six tons of delicious-looking vegetables, grown on the farm and put up at a labor expense of only \$30 a month for one man's wages during the canning season. This, of course, does not include the root vegetables—carrots, parsnips, turnips, potatoes, etc., or the cabbages and barrels of sauerkraut. The pork used is grown, killed, and put up on the place. Sheep are grown for both wool and mutton. Last year the slaughtering of hogs amounted to about 40,000 pounds; that of sheep to about 5,300 pounds; and that of poultry of various kinds to 6,000 pounds. About 3,400 fowls furnish poultry for the sick and for the general tables on holidays, besides helping out on the supply of eggs for the tuberculosis patients. The result is a per capita cost of living which, in the case



Fig. 1. Uncle Sam and Miss Columbia ready for the fancy-dress party at Oak Forest.

goes by that name. Among the measures, little and big, which help to preserve a sunny atmosphere are these:

Old couples are not separated. Husband and wife are given a cheery little apartment where they can enjoy some of the privacies of home and the comfort of each other's companionship during their declining years.

The flowers grown in the greenhouses are used to give cheer to the more seriously ill of the tuberculosis patients. Every bedridden patient into whose room I looked had a bunch of carnations. Those who prize flowers enough to take care of them are given pots of blossoming geraniums. Some of the rooms were riot of color and sunshine.

Amusements and recreations of various kinds are provided for the patients. In winter excellent picture shows are given twice a week. The amusement fund, by the way, does not come out of the county appropriations, but is provided chiefly from the sale of daily papers to employees and patients, supplemented by any donations that are made for the purpose. Last year \$315 was realized in this way—a sum sufficient to pay not only for the moving pictures but also for victrola records.

Every patient, no matter how handicapped, who is able



Fig. 2. Hallowe'en means a party for big and little, young and old, at Oak Forest Infirmary.

of inmates who require the most expensive fare, the tuberculosis patients, is a trifle less than 84 cents a day; at the infirmary the cost is a little over 46 cents a day, and, for the entire institution, including all classes of patients and employees, the average is between 53 and 54 cents a day.

Patient labor produces innumerable articles that help reduce the expense of operations in other departments besides the commissary. For instance, the material of old overcoats is sterilized and used, together with old bed ticking and pieces of old shoes that are past wearing, to make, at a cost of one and one-half cents per pair for material, bedroom slippers equal to those which sell for \$1.50 retail. The smaller rags are made into rugs, and the very few rags for which no other use can be found

are sold for paper. Brush brooms which would bring from \$3.50 to \$3.75 retail are produced at a cost of 65 cents and 80 cents. A legless man makes floor brushes. Ordinary brooms are manufactured at a cost of 28 cents, and these, by the way, are superior to the broom which retails for \$1.25, for the broom corn is reinforced by a tough palm fiber, which adds to the wearing qualities of the broom. The waste broom material is made into radiator brushes. Mattresses are made in the institution, and sterilized and made over as long as the material justifies the work. When we went through this department a blind man was making mattresses and lame men who could not stand were teasing the moss. Institution garments, sheets, etc., are made in the sewing room. One of the shops is devoted to the manufacture of artificial limbs. Sometimes men come into the institution and stay only long enough to be fitted with the artificial appliance needed, for then they are able to make their own way in the world.

One of the great needs of the place, in Mr. Bailey's opinion, is a building which will provide sufficient space for all the shops and workrooms needed to provide occupation for all the patients able to work.

#### PUTTING SUPERSTITION TO FLIGHT IN CHINA

##### How a Modern Progressive Hospital Is Replacing Ancient Delusions Surrounding Disease

Situated in a community whose population is 70 percent farmers, the Judson Smith Memorial Hospital of Taiku, China, deals with people of a hardy and thrifty stock. In spite of this fact, however, the ordinary diseases of a temperate climate are prevalent, especially tuberculosis,



Fig. 1. The Chinese basket ambulance, ready for the journey.

and are greatly exaggerated by lack of hygiene and sanitation. The task of the hospital in the Land of the Dragon is a difficult one, for the whole idea of illness is surrounded by an impenetrable barrier of mysticism—an inherent feeling held by generation after generation that sickness is caused by the evil spirit as a punishment of sin.

The spirit can be driven away by the burning of incense before an idol or by the employment of a native medicine man, who inflicts upon his patient a variety of antiquated methods, such as cauterizing with a hot iron, burning sulphur or dried leaves on the scalp, or puncturing holes in the body with needles for the liberation and exit of the evil spirit which is supposedly within. In return for a goodly fee, the native medicine man will feel both pulses, following this ceremonial with an order for some twenty-odd ingredients to be purchased at the "doctor's" drug shop, boiled in a pint of water, and the juice taken down at one dose. Some of the substances actually known

to be used in Chinese prescriptions are dried frogs, scorpions, rhinoceros skins, wood-shavings, flies, asbestos, crushed pebbles, moths, centipedes, toads, lizards, caterpillars, powdered snakes, and wasps.

It is to people drenched in this type of almost hopeless superstition that the Judson Smith Memorial Hospital extends its offer of modern medical and surgical help. For the entire province of Shansi, there are but three hospitals and six physicians, while, in the Smith Hospital district alone, the population is approximately over two million.

The hospital now occupies its own premises in a healthful location outside the city gate, although in its initial five years patients were received in an old lumber camp which served as a combined examining and dispensary



Fig. 2. The stretcher used for conveying injury and emergency cases to the hospital. Note the dirty padding used to keep the patient warm en route.

room, storehouse, and operating theater. Two years ago the erection of a new hospital was begun, two wings of which are now completed and in use. One of these, the Oak Park wing, is for sick women and children. It is airy, comfortable, and flooded with sunshine, in direct contrast to the homes of the patients, which seem to have been built with the main purpose of keeping out all possible fresh air and light. It contains a ward for patients, two private rooms, and a bath. The rest of the sixty patients still occupy ancient sunless courts near by, each court composed of four dingy, tottering huts of crude, dusty, red bricks. The style of architecture is, with some adaptation, Chinese, including the picturesque curving tile roofs. The natives of the district contributed largely toward the ten thousand dollars used in construction.

A constant string of patients come to the hospital to be treated and to live. Over three hundred men and women are cured each year of the opium habit, while each day cataracts are removed, victims of gun explosions, wolf bites, and other accidents are relieved, tuberculosis of bones, joints, and glands is checked, and women weakened by the senseless custom of foot-binding are made strong. Patients, rich and poor, are treated alike. The cases are largely operative, and the people regard as positive miracles the results of the knife in such simple cases as the relief of abscesses caused by the prick of the medicine man's needle or the repairing of a hare lip.

A basket, strung on a large bamboo rod, is the universal means of conveying patients to the hospital, for rubber-tired ambulances are unknown. In cases of injury, the patient is placed on a board, which serves as a stretcher, and covered with all the dirty, padded garments obtainable to keep him warm, after which he is carried to the hospital by six or eight men. Often the journey is a matter of several days.

*The*  
**MODERN HOSPITAL**

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### Pennsylvania Prepares To Reform Its Subsidy System

The appropriation of public funds for the support of hospitals managed by private benevolent societies has long been a widespread American practice. Until very recently the voluntary hospitals of England not only sought no such appropriations, but disapproved of them in principle; Canada and Australia, on the other hand, have followed in the footsteps of the United States.

Broadly speaking, the various states and municipalities of the United States have followed two principal methods in making such appropriations, namely, the lump sum subsidy, exemplified in the practice of the commonwealth of Pennsylvania, and the per capita system, one form of which exists in the city of New York. The Pennsylvania system has long been notorious because of the lack of any uniform relation between the sum appropriated by the state and the amount or cost of the public service rendered by the hospitals.

Commenting on the Pennsylvania system, the writer has heretofore called attention to the fact that, whereas "Pennsylvania's appropriations are supposed to bear some relation to the needs of the hospitals benefited and to be proportionate to the amount of charitable work done by such institutions, there is no recognized rule for the guidance of the board of public charities, and the legislative

committee which finally reviews and passes upon the recommendations of the charities board is not even bound to follow the latter's suggestions." It is not surprising, therefore, that great irregularities have existed in the distribution of public funds among the hospitals of Pennsylvania—irregularities so gross that in a given year the appropriations when analyzed were shown to be equal to over two dollars per capita per diem in the case of one hospital and only thirteen cents in the case of another.

Any properly regulated system of public appropriations for the partial support of private hospitals must insure equality of treatment for all beneficiary institutions, must establish a simple and honest ratio between work done for the community and money paid by the community, must prevent or at least discourage fraud in the admission of public patients, and must avoid the unnecessary and wasteful duplication of plant. These principles have long been recognized in the city of New York, where each cooperating hospital is required to present evidence that it has actually earned by the admission and treatment of a patient entitled to public support the per capita per diem allowance which is granted by the city in such cases. For many years it has been the practice of loyal New Yorkers to point with pride to the regulations by which the public interest has been safeguarded in this matter, and to contrast the enlightened methods of New York City with the loose and inequitable procedure of Pennsylvania. But extremes beget extremes; and if the legislature of Pennsylvania should decide to enact the bill which was introduced in the house of representatives a few weeks ago by Mr. Sarig, Pennsylvania will hereafter exercise a more rigid control over its appropriations than has ever been dreamed of in New York. Here are some of the provisions of the Sarig bill:

1. No hospital will receive an appropriation unless after investigation the board of charities and the commissioner of health agree that it has proper facilities for rendering treatment.
2. The state will fix minimum rates.
3. The board of public charities will prescribe methods of accounting designed to show the actual cost of the maintenance of poor patients.
4. If patients pay part of the cost of maintenance, the state will be responsible for the payment of the remainder only.
5. Unless a patient is actually committed by the poor authorities, the superintendent of the hospital will be required to certify that neither the patient nor those legally responsible for him were able to pay, such certification to be made after due investigation and to require the approval of the poor directors of the county.
6. *The amount*

*to be paid to any one institution in any one year shall be the amount properly chargeable for the care of destitute patients, after deducting all voluntary contributions for maintenance, all payments for or on account of poor or destitute patients, revenues received from investments, and all donations except those specifically appropriated by the donor for some other purpose.* 7. The state board of charities shall have the right to investigate the management of any institution receiving money from the commonwealth, to prescribe the manner of keeping accounts, and to decide what deductions shall be made from the estimated cost of maintenance, in order to ascertain how much the institution has the right to receive.

These regulations, which are embodied in the Sarig bill, are entirely sound in principle, and no objection can reasonably be made to them if they are fairly interpreted and applied.

Assuming that the commonwealth is prepared to make appropriations sufficient to cover the actual net cost to the hospitals of caring for patients who may properly be regarded as public charges, the effect of the new system will be to relieve the private hospitals of all financial responsibility for the care of such patients, except in so far as the cost of their maintenance is provided for by the hospital's current legacies and donations and its invested funds. The hospital might, however, reasonably ask for an amendment of the bill so as to provide that unrestricted legacies need not be applied for current support, but may be added to the capital. The fairness of such a proposal would doubtless be recognized by the sponsors of the bill.

Those sections of the bill which confer upon various state officials the right to investigate hospitals, to prescribe forms of accounting, to compel the production of books, and to examine witnesses are demanded by the public interest, but they might easily lead to injustice and petty persecution in the hands of narrow-minded bureaucrats. It is a grave question, however, whether there is any need for certain clauses in the bill which authorize the state board of charities "to correct extravagances of any kind" in the administration of the hospitals, and more especially for the clause which authorizes the board "to require such reduction in the number and salaries of employees and other expenditures as it may think proper."

The representatives of the state may perhaps ask how costly extravagances are to be prevented if these clauses in the bill are eliminated. It would seem to the writer that the state board is given ample authority in other sections of the bill,

which empower the board to decide precisely what deductions shall be made from the gross cost of maintenance in estimating how much the institution shall have the right to receive. It is far from desirable that hospitals, which in many instances are centers of medical and nursing education and which have many functions besides the function of caring for the destitute, should be subject to such unrestricted control as the Sarig bill would impose upon them. Hospitals may with justice and wisdom desire to maintain higher standards of service than those which are deemed sufficient by the state board of charities, and it is contrary to public policy that the state board shall have the right to curtail the excellence of hospital service. The state may say properly how much it will spend, not how much others may spend, for charitable purposes. Perhaps controversy over this question can be obviated by changing the proposed method of appropriation to a method corresponding to that of New York, where a fixed per capita allowance is made which is supposed to bear some relation to the cost of maintenance upon a scale satisfactory to the public authorities. In New York City the hospitals are free to go as far as they like beyond this scale, but in doing so they spend their own money and not that of the taxpayer.

If the Sarig bill is enacted in its present form, it may impede the progress of the hospitals of Pennsylvania, while the hospitals of other states are continuing to advance. Surely it cannot be the aim of the sponsors of the bill to produce any such result.

S. S. GOLDWATER, M. D.

#### What Is the Matter with the Rural Hospital?

One of the best-known of our state health officers replies to a question as to the bearing on rural hospitalization of his investigations into rural hygiene:

"Our rural hygiene investigations have no relationship that I can see with hospitals. The problem of rural hygiene is not a hospital problem. It is not cure that the rural dweller needs; it is prevention."

The obvious reply is, "Prevention is better than cure, not in the country alone, but everywhere. If the dweller in the country has tuberculosis, a broken leg, or an abscessed tooth, does he not need cure as much as the city dweller similarly afflicted?"

No one, however, needs to be reminded of self-evident facts—certainly not our distinguished correspondent. The reply meets his words and not his underlying meaning. We question whether his impatience with the rural hospital does not

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really point toward the fatal defect in our present conception of that institution.

The average small hospital has no idea of any mission which has not been defined in large letters by the great hospitals of our large cities. Now, the function of these hospitals—of *the* hospital, as we have been wont to say and to think—is three-fold: first, treatment of disease; second, education of the rising generation of practitioners; third, research into the cause and cure of disease. The size of large hospitals does not necessarily mean that they are contributing their share toward treatment, medical education, and scientific research; but the sheer scantiness of clinical material—not to speak of other factors—in small hospitals does most certainly mean that they are at a serious disadvantage in all three respects. Treatment, medical education, and scientific research can never reach their highest point of efficiency except where large numbers of patients are gathered together. Still, the ideal of the small hospital, so far as it has an ideal, is molded on that of the metropolitan institution. The conscientious superintendent of the average small hospital strains wearily after an unattainable standard; the one who is not conscientious gives it up and sinks into the morass of inefficiency and petty local jealousy and intrigue.

Now, is it not possible that, after all, the rural hospital has a field of its own, in which it need not apologize for its very existence? May it not be that the incubus of an unattainable ideal is what has hindered the small hospital from perceiving and developing ideals of its own—ideals just as high, just as worthy, and just as valuable to the world as those of the large hospitals? Suppose we were to start from the ground up, rather than from the roottree down, and, instead of asking, What faint and far-away resemblance to the great city hospital can we evoke at the cross-roads? we were to ask, What do we most need at the cross-roads in the interests of the health of the community? Does not the fact that our correspondent can say that "the problem of rural hygiene is not a hospital problem" point toward the loose screw in our concept of the rural hospital?

We have heard of at least one very small rural hospital (concerning which we hope to have more to say some day) which is the work of a man with a vision—a vision of great things to be wrought, and also an illumined insight into the actual conditions by which he is surrounded. In other words, the local habitation of his vision is the rural town in which his lot is cast—not Rome or Babylon or New York—and his hospital, instead of being a bone of contention among local practitioners and tradesmen, has become an actual force

which is helping to mold the life of the community into higher and better forms.

What is the true field of the small hospital? We question whether anyone is at present in position to answer with finality. Pending such study as may permit a fairly authoritative reply, we venture to ask, Should it not be first and foremost an educational institution? To medical education the small hospital may be able to contribute little; but can it not do all the more to educate the people of its community in hygiene and right living? The small hospital may be able to add little to our scientific knowledge of disease; but can it not give us practical studies of the actual sanitary and hygienic condition of the people? At best, the facilities of the rural hospital for the treatment and cure of disease can never equal those of the great metropolitan institution, but, to make up for this handicap, has not the rural hospital an opportunity, by making itself a vital force, an integral part of the community life, to do an unparalleled work in preventive medicine?

What we lack at present is leadership. We are inclined to ask, however, whether anything will do more to call real leaders into existence than the formation of a new concept, a practicable ideal, a constructive program, a field for real leadership.

### Nursing in Families of Limited Means: The Problem

The question of nursing in families of limited means has long been an acute one. Many families considerably above the dead line of poverty and charity are sustained on incomes less than the salary of a trained nurse. If sickness occurs in such a family, domestic reasons may make it impossible to remove the patient to a hospital; nor, indeed, are the existing hospital accommodations sufficient to provide for all such cases of sickness. The only care received by the mother of a family, sick in her home, may be that given her by her own young children, or by a busy neighbor who "looks in" for a few minutes each day. Attention was focused on the problem by the recent epidemic of influenza. Unfortunately, discussion of the question has, in some local instances, at least, resolved itself largely into recriminations between physicians and nurses.

Physicians have said, in effect: You nurses are too often unwilling to do the work which needs to be done; you want to pick and choose tasks which you like. You are unwilling to do poorly paid work; some of you have been known to take advantage of epidemics and other emergencies by demanding excessive pay. You are sometimes autocratic and dictatorial; and you are not fur-

nishing the service needed in homes where sickness is a financial burden. Your high standards of education and training are maintained primarily for your own benefit. We want greater obedience and more willing service, even if we have to accept nurses with less education and training.

Nurses have retorted, in effect: We have never pretended to be angels, and we claim some of the privileges of fallible humanity. Physicians do not hesitate to select the field of practice which pleases them best, and, if a physician is able to make ten thousand dollars a year, he is called, not an extortioner, but an eminent and skillful practitioner. There are slackers and profiteers in other professions than ours. We take all the risks that physicians run; we undergo hardships and perform drudgery which they do not share; and we are forbidden, under penalty of being called extortioners and profiteers, to ask more than the fixed standard rate of pay. By what authority are we summoned to the bar of judgment by a medical profession which practices as it pleases, charges what it thinks best, and indignantly rejects any suggestion that it submit to regulation for the benefit of the public?

Both sides speak with bitter sincerity. The worst of it is that, no matter which side is emphasized, the public suffers. Are there any conclusions which can be drawn by an outsider in the controversy? Apparently, it is safe to hazard two:

On the one hand, if artificial barriers are hindering women who could and would give good service at the bedside of the sick from rendering that service, those barriers must come down. Any standards of educational requirements and training maintained solely for the purpose of making the nursing field a closed preserve must give way before the public need. On the other hand, we may as well concede the annoying and deplorable fact that attempts to exact of nurses a degree of altruism and abnegation which are not expected of or practiced by anyone else have slight chance of success.

Let us disregard, for the moment, all questions of professional standards, and look at the matter solely from the point of view of supply and demand in the labor market. What is our demand? "A right personality,"<sup>1</sup> "intelligence," "fair education," "training of sufficient length, probably one year, in a good hospital," readiness "to assist in the kitchen and even to help care for the baby," health and strength sufficient to enable the "physician's assistant" and "household helper" to cope with the array of tasks thus suggested, and will-

ingness to accept pay below "the high price of the expert nurse" and within the reach of "people of moderate means, too self-respecting to accept charity."

The last-mentioned requirement may conveniently be taken up first. What charges are within the reach of people of moderate means?

Ten dollars a week would be felt as a severe strain by many families "too self-respecting to accept charity." Servant girls, however, are eagerly sought for at ten dollars a week, and, as the servant has no periods out of work unless she chooses and consequently does not have to meet her own expenses at any time, or the constant overhead expense of a room to return to "between cases," the financial advantage, at this figure, is clearly all on the servant's side.

Shall we say fifteen dollars a week? Scrub-women and laundresses have long been in keen demand, when not actually unobtainable, at two dollars and a half to three dollars a day, or fifteen to eighteen dollars a week. The scrubwoman or laundress, it is true, is usually at the expense of one meal each working day and her own maintenance on Sundays, but, to offset this, she has no periods of waiting "between cases." And, be it remembered, we do not scrutinize too closely the "personality," "intelligence," "education," and length of training of our cooks, scrubwomen, and laundresses.

Twenty dollars a week is as far beyond the means of many families "too self-respecting to accept charity" as two hundred dollars a week. Families not entirely devoid of self-respect have been and are even yet being reared on incomes exceeding twenty dollars a week very slightly, if at all; but their savings would not keep the wolf from the door many weeks if the breadwinner were ill, even without the added expense of doctor's bills, medicines, and nurse's salary.

Is the problem, then, insoluble? There is a key for every lock; but no problem can be solved by ignoring an essential element in it. One essential element in this problem is the fact that there are 385 gainful occupations open to women. If, among those 385 occupations, a woman can find one that pleases her better than nursing and offers her equal chances of success, the odds are that she will take that one in preference to nursing.

Another important element in the problem is the fact that a reduction of 40 or 50 percent in the nurse's salary is not going to bring her services within the reach of a large section of the population that needs those services.

Later we shall discuss some of the suggested remedies for the lack of nursing help in homes of small means.

<sup>1</sup> Jour. Am. Med. Assn., Jan. 25, 1919; reprinted in THE MODERN HOSPITAL, March, 1919, XII, 208.

### The Superfluous Imperfections of the Human Machine

As we remarked some time ago, the study of industrial efficiency focuses on the machine.<sup>1</sup> Lee<sup>2</sup> says:

"In the selection, construction, and use of the machine nothing is left to chance. Its type is selected in accordance with its exact fitness for the work demanded of it. It is constructed of appropriate materials and is so designed as to avoid lost motion and the waste of energy involved and to allow the highest possible proportion of the total energy that is transformed to perform the work required. It is kept clean, unnecessary friction is avoided, and every care is taken that its bearings shall not become corroded, rusted, or worn beyond repair. When in action it is run at a speed for which it is planned, and is not overloaded, and not overheated; the conditions under which it can work with the greatest efficiency have been carefully studied; and every effort is made to maintain these conditions and secure the largest possible output without injury or unnecessary deterioration of the machine itself. And the machine, it should be added, responds to all the care expended on its welfare and proves by what it does the value of the efforts made in its behalf."

As Professor Lee remarks elsewhere, the view of the human organism as a machine is in many respects justified, and there is nothing derogatory to the worker in the conception. The human machine is the most complex, the most essential to industry, and the most neglected of all forms of machinery concerned. Perhaps we ought to feel encouraged by the observation that the human machine is at last receiving careful consideration at the hands of the masters of industry.

One further fact, however, must be taken into account in connection with the human machine. It has a fatal defect—a defect of superfluity. A machine which, devised to grind wheat, should declare its intention of spinning silk, would certainly exasperate the miller. The human machine, in other words, has been spoiled by the presence of elements superfluous in a machine—desires and dislikes, interests and will. And while the human machine has certainly been neglected from one point of view, it has perhaps been taken too seriously from another. Possibly one reason for some of our industrial misunderstandings has been the fact that employers have not always realized that the fatal defects of the human machine are irremediable.

We hope, therefore, that, where Professor Lee's

valuable little book is read, Ordway Tead's volume<sup>3</sup> on "Instincts in Industry" will also be read to balance it. Less scientific in method, because dealing with a set of facts far more difficult to systematize and also completely neglected hitherto, it is even more thought-provoking. Someone has said of this book that working-class psychology appears not to be so entirely different from the psychology of other classes. This is in itself an observation not without importance, and apparently not always self-evident. To quote Mr. Tead, "a knowledge of the human tendencies—from the parental through the entire list to curiosity—has thrown light on facts which may heretofore have seemed to be without sense or reason. The individual is now seen as a part of a compact of ascertainable impulses who acts as he does because no forces, exterior or interior, are at work to influence his behavior."

That we are beginning to accord to the human element in production a degree of attention almost equivalent to that bestowed on the mechanisms of iron and steel which it serves, is a fact good as far as it goes. The next thing to remember is that "the human machine" is an incomplete formula and one on which only limited reliance can be placed.

### The Intern Situation in Hospitals

There has been of late years a remarkable change in conditions with regard to interns. Not many years ago the problem was where to find internships enough to give training to all medical graduates. At present, on the contrary, the demand for interns is greater than the supply, and it is questionable whether the number of interns will ever again be sufficient to meet the demands.

From the point of view of medical education, the change is a most desirable one. It insures that hereafter hospitals will be unable to exploit their interns by using them to take the place of orderlies and clerks while offering them no return in the shape of training. It also becomes possible to provide that interns shall not accept positions in hospitals which have not adequate facilities for giving the training which these young men should have before their entrance into general practice. As Dr. J. M. Baldy of the Pennsylvania Board of Medical Education and Licensure has pointed out, no hospital has an inherent right to an intern, and no institution should be allowed interns which is not in a position to afford them adequate training.

From the point of view of the hospitals which, through no fault of their own, are now unable to obtain interns, however, the situation at present has, in many cases, the aspect of calamity.

1. A Problem in Efficiency, THE MODERN HOSPITAL, Jan., 1919, XII, 45.

2. Lee, Frederic S.: The Human Machine and Industrial Efficiency, Longmans, Green & Co., New York, 1918. Price \$1.10.

3. Tead, Ordway: Instincts in Industry, Houghton Mifflin Company,

Replies to a questionnaire on the subject, sent out by THE MODERN HOSPITAL, indicate various degrees of disorganization and detriment to the service, owing to lack of interns. The work suffers at various points; records are not written, filed, or indexed; laboratory work is neglected; the surgeons lack assistance; and emergency cases have to wait for the attending physician.

The majority of complaints refer to parts of the service which do not require medical training or a medical degree for their satisfactory performance. In fact, a large number of replies to the question whether graduate nurses have been employed as anesthetists, surgical assistants, laboratory technicians, or clerical registrars, indicate that, in cases in which graduate nurses have been so employed, their services have been entirely satisfactory. Some correspondents even went so far as to say that the graduate nurses give better satisfaction than interns, who, of course, are only temporary incumbents, and may therefore feel less interest in the work than one who looks forward to continuing in it as a life career.

Dr. S. S. Goldwater, director of Mount Sinai Hospital, New York, and one of the editors of THE MODERN HOSPITAL, has suggested that the best way out of the present difficulty is to establish a course of training to enable available women of suitable education, preferably graduate nurses, to take the place of interns so far as they can. Women have been intensively trained, and are being successfully used as anesthetists and laboratory technicians. Such women have, however, been trained to serve exclusively in the capacities named and are not qualified for the broader work of clinical aids. Almost all of the women who have taken this special training have been absorbed by large hospitals, and the movement so far has brought no relief to the small institutions.

Dr. Goldwater believes that in a period of nine to twelve months an intelligent graduate nurse can be taught to perform that part of an intern's work which does not involve diagnosis and treatment. The course suggested by Dr. Goldwater includes training in anesthesia, first aid, surgical dressing, laboratory technique, history taking, operative technique, and clinical records. It will, of course, be necessary to control the supply of graduate nurses trained for such duties, so that no hospital may deliberately lower its standard by employing the proposed clinical aids to take the place of available interns, or to engage in any form of diagnosis or treatment—procedures which belong to the medical graduate and to the medical graduate only. With this proviso, it is believed that the proposed measure will be of

great assistance in raising the standard of small hospitals which are really in earnest in their desire to do good work.

THE MODERN HOSPITAL desires to aid in the establishment of the course of instruction proposed, and it will be glad to receive suggestions from hospital administrators as to the desirability of the course and the methods to be pursued in establishing it. We wish to express our appreciation to those who have already lent their aid by replying to our questionnaire, and we shall be still more deeply indebted to those who will favor us with their views on the plan above outlined.

#### Combating Venereal Disease

A letter from the American Hospital Association, which appears on page 308 of this issue, lays before the hospitals of the country the need of active cooperation in the fight against syphilis and gonorrhea. What the War Department accomplished in safeguarding and caring for our fighting men is known to all. This letter is timely because it calls to the attention of the hospitals a fact which may not be generally known—namely, that the United States Public Health Service, in cooperation with the state department of health throughout the country, and with considerable funds provided by Federal as well as by local authorities, is leading a permanent, all-the-year-round campaign to provide adequate facilities for the diagnosis, treatment, and prevention of venereal disease.

The hospitals of the country, both in their wards and in their out-patient clinics, have facilities at command which are of vital importance in the prosecution of this campaign, and the cooperation of the hospitals and dispensaries is essential. Public opinion on this matter has advanced rapidly during the last two years, and the hospital and dispensary which does its part in treating syphilis and gonorrhea, and in cooperating with public health authorities in their prevention, need not fear opposition. Such a policy, rightly carried out, will broaden the public backing and support for the institution. Superintendents and boards of hospital trustees may well give attention to the opportunity afforded them for participation in this great national program.

#### It Will Pay You To Have Your Own Mechanics

Superintendents who are careful in their expenditures do not like to employ outside mechanics to do repair work. They prefer to have their own mechanics. Permanent employees understand better how to adapt themselves to hospital conditions, keep out of the way, and if properly supervised, accomplish more work. As they have permanent positions, they are content with moderate wages.

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### **Check Up Each Month's Loss Through Breakage and Misuse**

The very first step in the promotion of thrifty habits is the taking account of items handled in the daily routine and their cost. A good method which is practised in some hospitals is to tabulate for each department each month the name and cost of each article broken or destroyed by misuse. The lists are distributed to the head nurses, to be by them presented to the pupils. This has the advantage of not only bringing to them the total cost of breakage each month, but of giving an opportunity for comparison between different wards or departments. The carelessness of workers in one department is often best appreciated when contrasted with those in a different department, where more care is exercised.

### **Establishment of Quota as Basis for Supply System**

It is helpful to establish the number of articles of different kinds needed for each service or division; fill these quotas, and thereafter replace only on condemnation. Frequently a condemnation system is in use without an established quota, but both are needed for good use control. By this method comparison is readily made between the careless and the careful employee.

### **Be Sure You're Right Before You Buy**

The introduction of new and untried appliances at the request of doctors and others has proved very costly to many hospitals. There are many persons who will cheerfully agree to try out any new device no matter how impracticable it may be, provided always that someone else pays the bills. A large percent of these untried appliances soon find their way to the scrap heap.

### **Clean Doors in the Operating Suite**

If the lower half of the swinging doors in operating room suites is covered with gray burlap finished thoroughly with a heavy washable paint and a glass plate is provided for that part of the door which the hand touches, the doors will keep much cleaner than the white enamel ones which usually show in startling contrast the greasy or bloody finger marks defacing them.

### **Weigh Your Garbage to Avoid Waste**

A very successful hotel man once said that the way to save in your kitchen was to sit on the swill barrel. Try weighing your garbage. Tell your people from week to week how many ounces per day per person is being wasted. You will be surprised at the result.

### **THE LATCHSTRING OUT**

MRS. LINA STRYKER FISH, general housekeeper of the Municipal Tuberculosis Sanitarium, Chicago, reports to us some very interesting work she has done in connection with the movement for community laundries in rural districts. Mrs. Fish's investigations have been chiefly along the line of motor power to be used in the running of such community institutions, and she has made a close study of the various advantages of and adaptations to gas, steam, water, power, and stove heat. This system of laundry will supply the needs of any number of people seeking its service. The expense will depend upon the motive power and equipment. Mrs. Fish believes the community laundry is certainly a step in the right direction,

and she feels that the plan is an ideal one for small districts which are striving to combat the high cost of living as well as for cities where the underlying principles will work out satisfactorily.

MR. MICHAEL M. DAVIS, JR., director of the Boston Dispensary, who is in charge of the public health phase of the Americanization study of the Carnegie Corporation (not to be confused with the Carnegie Foundation), is making an extended trip for the purpose of ascertaining the big health problems which must be tackled and solved in the Americanization of those who have come to us from other lands. For instance, in the matter of the midwife, a study is being made (employing also the results of previous investigations) of the problem of regulating and standardizing the work of the midwife among the immigrants and in teaching the public health nurse and preparing her for obstetrical service among this class of people.

When the investigation and preliminary work has been completed, the results will be published as a volume, and Mr. Davis expects to begin work on the literary portion during the early summer.

The work is being carried on in connection with other bureaus and agencies, such as the United States Public Health Service, the Department of Labor, the Postoffice, the superintendents and the social service departments of many hospitals and dispensaries, the various visiting nurse organizations, etc.

MRS. SIDNEY McCALLIN of St. Dunstan's Hostel, London, spoke most enthusiastically of her work for the civilian blind on the occasion of a recent visit to our office.

Mrs. McCallin came to America after two years' work at St. Dunstan's (which was described on page 295 of our October issue and page 163 of our March issue), and was amazed to find Illinois lagging behind in its blind activities. She realized that the blind are an industrial asset to the state and she found that the only place in Chicago where any effort along this line was being made was at the Lighthouse. Through the cooperation and new interest of well known Chicagoans, Mrs. McCallin has been able to give a great impetus to the industrial work at the Lighthouse which was in its infancy a year ago. Florist baskets and baby carriage bodies are made there and marketed through the regular trade channels.

Under the direction of Edith L. Swift a whirlwind campaign of publicity has shown remarkable results. Two thousand new members have joined the Improvement Association for Blind People, the organization which conducts the Lighthouse at 3323 West Twenty-second Street. The interest of the Board of Education has manifested itself in two directions: First, by giving four portable houses to the Lighthouse and so increasing its workshop capacity; and second, by the opening of evening classes for the blind in the Medill High School, where typewriting, business English, and dictaphone operating are taught. The first class for blind masseurs to be established in America is the one about to be graduated by Peter J. Peel and placed in Chicago hospitals.

Sir Arthur Pearson's purpose in coming to America was to promote a national organization for the blind, and his objective is about to be realized. Mrs. McCallin said "Illinois must shortly take its place as a spoke in the great national wheel, the hub of which is 'Evergreen,' the government home for the blind near Baltimore." In her opinion the soldiers at Evergreen are the war's great heroes, for, in sacrificing their sight, they, who number 224, have called attention to the 100,000 blind civilians of whose existence America was previously almost unconscious.

**"SISTER"—A MEDICAL STUDENT'S STORY****Between Gallipoli and Alexandria—The Hardest Work of the War Not Done in the Trenches**

Crackle, crackle, crackle! Rifles were snapping vigorously, and the Anzac slopes were lighted up by fiery spurts which gleamed redly in the darkness. It was good to hear the sound of battle behind us and not in front, as we were badly wounded men being rowed to sanctuary.

"We are safe now," said a youthful North Countryman. But he spoke too soon. "My God! I am hit again," he gasped. The weak murmurs of two others told the same tale. The fourth man hit by the rain of bullets never spoke; he had been shot through the brain.

"They might spare the wounded men," gasped the man

been deposited on the deck, and the harassed R.A.M.C. sergeant turned on a grumbler with a snarl, "Don't you understand you are on sufferance here?"

The sister sprang up. "Sergeant, how *dare* you say that?" Turning to the patient, she said, gently, "He cannot quite express what he means. We have over double our usual number, and those with minor wounds can not get adequate attention, but do not doubt your welcome, you poor wounded men."

An M.O., finding that my wound was serious, ordered my removal to a large ward with a hundred patients in cots. About twenty were lying on blankets on the floor. One sister and two orderlies were working at lightning speed. The heat was intense, and the ward was airless. Sister's face was as white as chalk, and as she stooped



Canadian Official Photograph. From Underwood and Underwood, N. Y.

This was a common scene on the battlefields of France. In this case it is a Canadian R.A.M.C. who is seen giving a drink to the wounded man whose stretcher has been for the moment laid upon the ground.

next to me. He had been shot through the lungs. Another shower of bullets missed us, and soon we pulled up alongside a hospital ship ablaze with light. The casualties had been unexpectedly severe, and we were not surprised, though dismayed, when the C. O. of the ship called to us: "We are full up. We have over double our number." Our own N. C. O. called out, "Many of these chaps have been wounded for the second time, a few moments ago, and there doesn't seem another ship to go to."

"Then you shall all come to us; but it will be a tight squeeze."

Soon we were all lying on the top deck, which appeared to be strewn with the wounded and dying. A sister was moving from man to man, performing wonders in an incredibly short space of time. I watched her wonderingly, her fingers were so skillful and so swift. Once she was roused to fury. A crowd of wounded "walkers" had just

over the dressings she constantly drew her overall sleeve across her streaming face. "Orderly," I heard her say, "I must have the medical officer, if possible. See if he has finished in the theater."

Off the orderly sped. He soon returned. "The doctor is doing operations still, Sister, and he won't be ready for some time. I can't get anyone to come; they are all busy with their own cases."

Sister's lips tightened, but she went swiftly on, treating shock and collapse, controlling hemorrhage, and doing urgent dressings. Her trained eye continually kept watch over the maimed and dying men under her care, all the while she gave quiet and concise orders to her subordinates. I could see at once where the trouble lay. Although the experienced sister could direct inexperience, she had only one pair of hands, and could deal with only one pain-racked body at a time. Presently she sped along to me.

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"Where is your wound?" Noting with satisfaction that it could wait for some hours, the next question was, "Have you had any food?" "No, Sister."

"Orderly!" At the voice, gentle enough, but with the note of command we always expect from those who wield authority, the feeding orderly hurried up and ministered to my needs. "If your pain becomes unbearable, just call out and I will give you something for it," said Sister.

The ship began to move, and we realized that the Dardanelles were being left behind—not for the last time by some of us!

The hours crept on. A night sister came into the ward. She looked very worried. "Nearly two thousand men in charge of three night sisters!" she remarked, bitterly. "How can we cope with it all? It's appalling to be so short-handed."

"Do all you can," said Sister, "you can't do more. You needn't worry about this ward, I shall not leave it tonight. I can't get the doctor, and still a third of my cases need attention."

"You'll be worn out, Sister. You can't work day and night."

"It's a case of *must*, Sister dear. I *won't* leave these men with an untrained orderly and an overworked night sister; but, oh! for some English coolness! This heat drives me mad."

The two day orderlies went off duty, and one poor bewildered lad, who had never before tended a wounded man, found himself night orderly.

An anemic-looking very young ship's engineer hurried up to Sister. "I am off duty now. I've come to help you, Sister. Everyone is working like forty devils on the decks and everywhere. The wounds are terrible."

"You are a godsend. Please go to the kitchen and fill a dixie with cold water and lemon squash. Put in as much ice as will make it really cold, and give every thirsty man a good drink, except the men who have red tape tied to their cots. If they drink iced stuff it will kill them. So be careful."

"Thank God for that!" gasped the thirsty men. When Jackson appeared with the dixie Sister had further instructions. "If you find any man unconscious or in terrible pain, please come and tell me at once." She stooped over her dressings. The poor patient had been badly burned through a bomb, and she was trying hard to save his eyes. Jackson came flying back. "I have found a man who asked me to turn him over, as he was shot in the back; as I tried to move him I heard a splash, and, Sister, his bed is full of blood."

Sister grasped a tourniquet and her drum of dressings and ran. "Orderly, fetch the doctor."

The orderly returned. "The doctor can't leave the theater, Sister."

Sister was successfully stemming the flow of blood with expert fingers which never faltered; but she needed assistance, and to her explicit instructions the orderly turned a deaf ear and a piteous face. "I can't abide the sight of blood," he whispered, "and I'm feeling very sick." He crashed down on the floor. Jackson kicked him aside savagely. "His job should be taking babies out in prams," he said, angrily. "Let me help you, although I am but a fool." Together they changed the soaked sheet. The patient was collapsed and almost lifeless. "This man needs expert attention for quite an hour, Jackson," said Sister. "I have not time to nurse him, and if he isn't properly nursed he will die. Any moment other cases may start hemorrhaging. I wonder if the stewardess would help me—do go and ask her."

Jackson raced off and returned with a reliable-looking

woman. "She was working on the deck, but I made her come," he said.

Sister smiled her thanks, then gave some rapid instructions to the stewardess, who warmed to her task.

My wound was aching horribly, but I hated giving the overworked woman trouble; however, the pain became so agonizing that I called out. Sister was by my side instantly—kind, alert, and helpful. "Poor man, the pain must be terrible," she said, softly. She was manipulating a hypodermic syringe.

"It's terrible that any woman should be driven as you are," I said, impulsively. "The responsibility alone is far too much. I am a medical student, and I understand something of what you must feel."

"The trouble is the absolute inexperience of the orderlies," she said, sadly. "They are splendidly willing and hard-working, and they can't help their lack of skill. I am giving you morphia," and, because I was a medical student, she added, "My M.O. allows me to give it at my discretion." The morphia gave me a blessed respite from pain, but sleep was impossible, and all through the night I was conscious of a strong personality in the ward, of a white-capped woman who kept watch vigilantly, and who worked unceasingly.

The next day Sister worked as untiringly as though she had not worked through the previous day and night in an indescribable atmosphere. Her face looked gray through the chalkiness, but the blue, pitiful eyes were serene. The ward M.O. looked grayly tired, too, but he worked heroically on. One of the penalties of having the ship's best surgeon was that he was so often called off to operate on other men's cases.

Only once did I see Sister completely lose her serenity. It was when her most capable orderly was torn from her. She disliked the substitute; so did the patients. Hitherto the day orderlies despite their lack of skill had been nearly all that orderlies should be; but the newcomer appeared to have but one mission in life, and that was to dodge his urgent duties and Sister's all-seeing eye. She did not discover his deficiencies at once, and the finding out was bitter. One of the patients had been shot through the abdomen, and for two days did well. On the third day Sister watched him anxiously; untoward symptoms were appearing. Suddenly he became restless, with clouded brain. "Orderly, keep a strict eye on Bed 4 while I find the M.O." Being one of those excellent persons who give clear explanations, she added: "I know the doctor is operating, but he may give me permission to give the patient a sedative, if I explain things. Don't leave him; if he gets out of bed he will die; his life depends on his being kept very quiet."

"Very good, Sister."

The doctor had finished operating, and was on his way to the ward; Sister met him just outside and explained matters. The orderly, depending on Sister's absence for about seven minutes, had hurried to the kitchen to imbibe a hidden bottle of beer. The poor patient, becoming more restless every moment, tore off his dressings and stumbled out of bed. The captain had sent down a basket of fruit to the ward, and it had been distributed to the patients whose wounds did not interfere with their appetites. When the horrified doctor and Sister entered the ward, they found their cherished patient looking out of a port-hole eating an apple. The unconscious orderly, hurriedly reappearing, met the full blast of Sister's withering scorn. Turning to the M.O., she said passionately, "Please insist that this orderly is removed at once. We have quite enough to bear without seeing our brave men die through sheer brutal carelessness." The orderly was removed.

And, thanks to Sister's almost superhuman efforts, the patient did not die.

As we neared Alexandria the heat and airlessness became even more intolerable, and we all suffered badly. Our indomitable sister worked steadily on, nursing, dressing, encouraging, and directing.

"Do you ever get downhearted, Sister?" I queried once. "Yes; but only over one thing. I want twelve hands, instead of two, and a relief brain when my overworked article becomes deadly tired."

"You are understaffed!" I said, indignantly. "It's extraordinary that nursing sisters should be driven so."

"Things will improve," she answered. "We are not really accustomed to war yet; besides, we have double our usual number of patients. And," she added, "could one ever do too much for you splendid men who faced hell at Gallipoli?"

When we reached Alexandria, and the disembarking began, Sister personally superintended the placing on the stretchers of every wounded man, and where necessary she administered milk and brandy and encouraging words.

"The captain has steered his ship, but the sister has steered us to port," said an Irishman, thoughtfully. "And, bless my soul! She's sorry to see us go."

The disembarkation officer was hurriedly striding through our ward. "This is a splendid ship. You men are in clover here. The poor fellows who have been brought down in transports have not fared like you." He was hurrying past my bed. I was only a humble private, but one moved to an intense appreciation of a nursing sister's work. "Sir," I called out, "Sir."

He halted. "Well, my man?"

"I only wanted to say, sir, that while we have been lying here, we chaps have realized that the hardest work is not done in the trenches."—*The Nursing Times*.

#### THE FIRST TRAINING SCHOOL FOR NATIVE NURSES IN HAITI

**Establishment by Two Members of Navy Nurse Corps Under Supervision of Public Health Service—Improvement of Deplorable Hospital Conditions by Officers of Marine Regiments—Newspaper Campaign and Influence of Sisterhoods in Arousing Interest of Natives—Results of First Quarter's Work**

By LUCIA D. JORDAN, Chief Nurse, U. S. N., Training School for Nurses, Port au Prince, Haiti

The first training school for nurses in the Republic of Haiti was established as the result of plans laid by Commander Norman T. McLean, U. S. N., shortly after his appointment as sanitary engineer of Haiti. At his request, two members of the Navy Nurse Corps were detailed to duty in Port au Prince, Josephine Y. Raymond, nurse, U. S. N., and myself, and in July, 1918, we were assigned to the duty of establishing a training school for native Haitian women.

The great mass of the 2,000,000 inhabitants of the negro republic are illiterate and without the most elementary ideas of hygiene. The hospital situation in Haiti at the time of the occupation was deplorable. The naval medical officers attached to the marine regiments stationed in Haiti undertook such improvements as were possible. In the City General Hospital, Port au Prince, their work was so successful that, when its control was assumed by the Public Health Service December 1, 1917, it had been brought to a workable basis from an almost hopeless condition of squalor and filth.

The necessity for Haitian trained nurses had long been recognized, but their training could not be undertaken until after the Public Health Service had been developed to a point where the school could be properly administered.

Most of the hospitals of Haiti had been more or less under the general administration of the various French sisterhoods, who had worked under the greatest difficulties to care for the sick. Although they were not trained nurses, they labored continually to maintain the hospitals. They were, however, greatly handicapped by lack of money. The various institutions had no regular income but were dependent solely upon contributions from the state and private sources.

Much preliminary work was necessary before the actual work of establishing the school could be begun. It was necessary to interest the better class of Haitian women in the plan, and this was done through a number of articles in the daily press and through the influence of the sisters both in the hospitals and throughout the island.

More than fifty applications were received. Of this number, forty-nine were eligible, and twenty-three of these formed the first class of probationers of the first training school for nurses in Haiti. The class was necessarily limited to twenty-three, as there were accommodations for that number only. The course is two years, the first three months of which are the probationary period. The pupils are carefully graded, and at the end of the course a diploma will be given to those who have successfully complete the required work.

The first session of the school opened October 15, 1918. During the first quarter there were three resignations, two discharges, and three dismissals. As eight applicants were admitted from the waiting list, however, the present number of students is the same as that at the opening of the school—namely, twenty-three.

The probationers exhibited a very deep interest in the work and a desire to take advantage of every opportunity offered them. In the final summing-up of the work of each nurse at the end of her probation, many things were considered—theoretical and practical work, willingness, ability to adapt herself to circumstances, and general suitability. The fact that the entire class, with two exceptions, was able to complete the probation period successfully is illustrative of the earnestness displayed.

During the quarter just ended, instruction has been given in general nursing, beginning with the admission of the patient to the hospital and including pre-operative preparation and post-operative care, elementary operating room technic with preparation of solutions and sterilization, elementary anatomy, and physiology.

In *materia medica* the pupils have studied the most commonly used drugs, their methods of administration, and their physiological action. They have also been taught the symptoms and treatment of several diseases and have had thorough training in the care and feeding of infants.

The method of instruction has been that of weekly reviews of the ground covered during the week, with short quizzes from time to time. The results of the final examinations were very gratifying. The general health of the probationers, too, has shown much improvement during the short time the school has been in operation.

On February 1, 1919, the class of eighteen accepted pupil nurses received their caps, and we now have a class of eighteen capped nurses and five probationers.

Be careful of all supplies and use each article, whether it is linen, dressing, or only a duster, for just what it is intended.—Marie Robertson, R. N., in *The Nurse*.

## THE MODERN HOSPITAL

## DISPENSARIES AND THEIR SERVICE TO THE PUBLIC\*

## What They Are Doing to Aid the National Program—The Question of Clinics—Dispensary Abuse—Meeting the Shortage of Doctors and Funds

By MICHAEL M. DAVIS, JR., Associate Director Boston Dispensary, Boston

The subject of "dispensary abuse" has been discussed at previous sessions of this association, and at many medical meetings, such as those of the American Medical Association. "Dispensary abuse" in the sense in which it was brought before the association last year, meant the so-called abuse of dispensaries by patients who are believed able to pay for a private physician.

The question involved in such "dispensary abuse" is partly one of fact. How many dispensary patients, and what proportion of cases, present this particular situation—i. e., are too well off to be entitled to the privileges of a charitable dispensary? A number of studies and investigations have been made recently of the financial condition of dispensary patients and have been published in *THE MODERN HOSPITAL* and various medical journals. A few years ago over one hundred leading hospitals were circularized by the out-patient committee of this association to ascertain how large a problem "dispensary abuse" was, and the returns were printed in the "Proceedings" of the association in 1915 (page 421). Summarizing those figures, I may say that at that time practically no out-patient department of any hospital reported a larger percentage of patients rejected than 2 percent. At the large majority less than one half of one percent of patients were believed to be able to pay for a physician.

It is also to be borne in mind that the financial condition of the patient is not the only consideration. Financial condition, meaning simply his income, must be weighed in conjunction with personal responsibilities, the size of the family, if there is one, and the age, sex, and status of its members. It must also be weighed in conjunction with the nature of the disease and the cost of the medical treatment. A case with some minor ailment, requiring, perhaps, a single visit to the office of a general practitioner, is in a very different situation from a case of infectious syphilis or a case requiring difficult diagnostic procedures and surgical operation. The cost of private medical treatment in one case might be \$2 and in the other case it might be \$200. Thus three factors must be considered: (1) the cost of needed medical treatment; (2) the financial condition of the patient; and (3) his family responsibilities.

The out-patient committee of the association is a unit in believing that this problem of so-called "dispensary abuse" has been talked about rather more than it warrants. It has sometimes been made the subject of bitter discussion in medical meetings, to an extent which the facts, if properly investigated, would not substantiate. The committee also is aware that the so-called abuse of dispensaries by patients able to pay is not the only form of dispensary abuse which exists. The lack of adequate attention to a patient after admission to the dispensary is certainly a known form of abuse to which the administrators of hospitals and dispensaries should give particular attention. The American Hospital Association, composed as it is largely of administrators, should approach such a problem from this standpoint.

\*Report of the Committee on Dispensary Work (Michael M. Davis, Jr., Boston; chairman, John E. Ransom, Chicago; Donald B. Armstrong, M.D., Framingham, Mass., and Robert J. Wilson, M.D., New York City), read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

The out-patient committee believes that a well-administered dispensary or out-patient department will find the problem of "dispensary abuse" a practically negligible one. Good administration in this respect demands careful admitting of patients, with a trained person at the admission desk of the dispensary, who asks suitable questions, tactfully and wisely, of each new patient. Such admission systems are in vogue at a number of dispensaries and out-patient departments. There is nothing new about them, and every dispensary ought to have one. On behalf of the committee, I can not emphasize too strongly our feeling that the problem of dispensary abuse is to be solved, so far as it exists, by thorough dispensary administration, and that a trained person should admit the new cases, keeping proper records of them at the time they are admitted. The hospital or dispensary administration, I am sure we all agree, stands primarily for the interests of the patient. To determine which patients fairly need our medical care for the trouble with which they come, is our first-line responsibility; and to give that medical care, efficiently and completely, is our main-line responsibility, hardly more important. If we measure up to our double responsibility in these respects, the committee believes that the problem of "dispensary abuse" will be talked about very little—at least, in circles of hospital administrators.

One of the members of the committee, Dr. Donald B. Armstrong, of Framingham, Mass., has made a special study of dispensary and clinical work in the small city of approximately 20,000 population or so, and his individual and valuable report was published on page 218 of the March issue of *THE MODERN HOSPITAL*. The subject of the small city is of interest to many at this time.

The committee also wishes to call the attention of the association to certain developments of the past year. The state of Massachusetts has passed a law licensing all dispensaries and out-patient departments and placing the administration of the law in the hands of the State Department of Health. In New York there has been a license law for many years, placing the administration, however, under the State Board of Charities. The Massachusetts law regards the dispensary as a health organization rather than as a charitable organization, although, of course, it is both. Its operation is only just beginning; so it is too soon yet to state what its results will be. It is interesting, however, as an evidence of the growing importance of the dispensary in the public mind.

The post-card inquiry conducted by this committee has given us information upon two questions of special interest in connection with the war. The "Children's Year," of which we have already heard, has appealed to everyone here as an important national program. It has made a demand upon the country for larger facilities for medical examination and care of babies and young children. Many dispensaries or hospitals have been asked to co-operate in establishing or in developing their clinics for little ones. On counting our returns it was found that, out of 250 replies received to this question, just 100 institutions said they had children's or babies' clinics as parts of their dispensaries. I am sure we all hope the number will be much larger next year.

Venereal disease clinics, to which the discussion has already turned at this session, were particularly inquired into by your committee. Approximately five hundred institutions were asked whether they had venereal clinics or whether they had started them in response to the war program for fighting these diseases. Approximately three hundred institutions responded to one question. Half of these, or 150, declared that they had venereal disease

clinics, and, of the 150, just half again, or 75, had started those clinics during the past year. In other words, approximately one quarter of the total number who responded had started new venereal disease clinics during the past year, and as many more had had them already. Those figures were mostly collected in April, 1918, and since that time many more clinics may have started. I know that in Massachusetts some six have been begun since April.

The major question which now faces the out-patient department and the dispensaries is shortage of medical staff on account of the war. Dispensary work is, in some respects, more closely bound up than hospital work with the care of the health of the general civilian population, because the dispensary reaches, in general, larger numbers than the hospital wards do, and includes minor as well as serious ailments. Therefore, it is very important to inquire as to the extent to which war conditions have diminished or have increased the need for dispensary work. From inquiries which we have made, we may say that some dispensaries report a distinct falling off in their attendance; others declare an increase. In one city two large dispensaries give exactly reverse reports—one, a considerable dropping off in number of patients, and the other, a full maintenance of attendance, even to the point of capacity in some departments. Without doubt some industrial communities which have grown largely during the war have an increased need for medical facilities. There is also little doubt that there are some communities which have not increased in population on account of the war, in which employment conditions and wages are better than usual, and in which the demand for dispensary service is thereby diminished. On the other hand, the taking into war service of many doctors and specialists has caused a grave shortage of medical facilities in some localities. We know of communities in which there is great need for dispensary clinics in certain specialties, although there is sufficient provision for general medical care.

On this point it is sometimes said that the increase in wages has been sufficient or more than sufficient to place our wage-earning population above the need of dispensary service. The studies made by the United States Bureau of Labor Statistics do not justify any such belief. They indicate that, in the larger industrial communities at least, the rise in the cost of living was, on the average, about 50 percent since the war, and that the average rise in wages has been some 15 percent less than that. This is not true, of course, in some particular trades. We all know of industries in which there has been an enormous increase in wages, but there are also many trades in which the rise of wages has been comparatively small and much less proportionately than the increase in cost of living. Where wages have not risen at least proportionately with the cost of living, a very heavy burden is placed upon a family in time of sickness—a burden which often should be met by the dispensary.

The great difficulty which every hospital feels in developing or even maintaining dispensary service now is the shortage of medical staffs. What can be done to face that practical situation? Is it practical to urge the establishment of dispensary work in the face of a shortage of medical service to maintain the clinics? The committee feels that the following two measures are of importance in this respect:

1. Encouraging such action as may wisely be taken by the Federal authorities to safeguard the staffs of the dispensaries as well as of the hospitals. In this respect we would point out that safeguarding dispensary staffs

is much the same thing as safeguarding sufficient medical service for the civilian population in general.

2. Assisting dispensaries in providing medical service by the placing of clinics upon a pay instead of on a free basis. The subject of pay clinics will be discussed in detail this afternoon at the meeting of the Out-Patient Section, and it is our purpose here to refer only to certain general ways in which pay clinics can be established and in which they will be beneficial.

By a pay clinic we mean a clinic which is charging fees covering actually or approximately the cost of the service rendered, including some compensation financially to the medical staff. This afternoon, at the meeting of the Out-Patient Section, accounts of various existing and successful pay clinics will undoubtedly be presented. With a shortage of medical service, the pressure upon the remaining physicians to carry their civilian practice is increased, and it becomes more difficult than ever for them to give time without compensation to unpaid hospital work. The only practical remedy for such a situation is to furnish the physician with sufficient compensation for his out-patient work to make it practicable for him to give a sufficient time to do efficient clinical work. A pay clinic can thus secure adequate medical service, can meet its running expenses out of the fees charged the patients, and at the same time perform valuable public service. Such pay clinics are not incompatible with the usual charitable work of the same dispensary.

The pay clinic opens the way to the establishment of dispensaries by many hospitals which would not be in position financially to equip or maintain the clinics unless the running expenses could be assured. By means of pay clinics many hospitals can maintain or increase dispensary service during the war. It may also be pointed out that pay clinics are particularly successful and are generally most needed in the specialties, where they serve to meet the need I referred to a moment ago—i. e., the wartime shortage of doctors along special lines, the oculist, the throat-and-ear man, the orthopedist, the genito-urinary surgeon, etc. The pay clinic may well be conducted outside of working hours, in the late afternoon or evening, and thus be a further means of helping many wage-earners with families to get adequate medical care, without losing the wages which they and their families need. Not a few pay clinics have been successfully cooperating with business firms in their locality, who have been very glad to have the opportunity to send, or advise employees to go, to such clinics outside of working hours. Thus working time is not broken, wages are not lost, and the health of the employee is conserved.

Such opposition to pay clinics as might exist among certain elements in the medical profession will be much less than usual today. Some physicians, who in ordinary times might object to the establishment of dispensaries, or to pay clinics, will now feel less opposition or no opposition because, owing to the shortage of doctors, they already have more work than they can do.

The small community of from 20,000 to 50,000 population may be especially assisted by the establishment of a pay clinic at this juncture, when local conditions are such that a large general dispensary is not needed, but a pay clinic along certain lines of medicine and surgery would be of great benefit. It would also be within the means of any hospital, inasmuch as the cost would be met by the running of the clinic itself.

The out-patient committee, as such, thoroughly endorses, of course, the recommendations of the Out-Patient Section regarding the cooperation of the American Hospital Association with the venereal disease program of the Fed-

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eral government. We believe that some letter or statement, sent to the hospitals of the country by the association, or by any committee suitably delegated, would be a desirable and helpful move on the part of this body. We urge the establishment in each community of such clinics for babies and children as may be demanded by the local committees working on the Children's Year. We urge consideration and study of the pay clinic as a means of supplementing the shortage of doctors and as a means of starting and maintaining needed dispensary clinics without increasing the financial burdens of the hospitals.

Because of the close relationship between the maintenance of dispensary staff and the maintenance of sufficient medical service for the civilian population as a whole, the members of this committee have been greatly interested in the report of the War Service Committee as to the best means of maintaining the medical care of the civilian population. The problem of keeping up hospital and dispensary staffs is part of the broader problem of maintaining sufficient medical service for the population as a whole. This committee hopes that the attitude and policy adopted by the office of the Surgeon-General will be such as will meet the needs of the civilian population for medical care, as well as the needs of the hospitals and dispensaries for medical staffs. We hope that both things will be considered together. Take the cases of doctors who are within the draft age, who are giving a certain amount of time to dispensary service, and who are conscientiously anxious to do their bit in the war. It seems to us that the situation of such men is often a pathetic one. Their patriotism sometimes causes them to enlist when their circumstances, their families, and the needs of the hospitals or dispensaries in which they are serving, make enlistment a serious matter. The responsibility of reaching the decision ought not to rest entirely with themselves. We trust that some way out may be suggested, as, for example, the commissioning of such men and their assignment to inactive lists during such period as the service which they are rendering to their hospitals and dispensaries makes them reasonably indispensable to their communities. Perhaps some measure of this sort may be suggested in a suitable manner through this association to the authorities at Washington.

In conclusion, we hope that every hospital will consider that it has a duty, in the present emergency, of maintaining every portion of its dispensary service which is needed by the community. Let not the mere immediate pressure of the medical staff lead to an early curtailment of service. First, study the needs of the community for such service. The experience during the past year of charitable organizations has seemed to indicate that the public is responding even more fully than usual to all appeals for money to meet real community needs. The interests which the public shows in health is increasing. I believe that the need of caring for the sick is a need to which the American public in almost any community will generously respond. If we know what we want and why the community needs it, we shall get it.

Under a recent ruling of the city of Sacramento, Cal., the public health department closes from Saturday noon until midnight, and this time is considered as a legal holiday. The only exception is made in the physicians' and surgeons' department, which consists of the city physician, the emergency surgeon, and the nurses of the Emergency Hospital, who are subject to call at any time of the day and night. There is but one emergency nurse, who is relieved for a few hours by a nurse doing welfare work and who works over twelve hours daily.

### WAR-TIME PLANNING OF HOSPITALS\*

**Efficient Planning and Building Necessitates Time and Consideration—Congestion in Building Market After War Inevitable—Immediate Planning Urged**

By OLIVER H. BARTINE, New York City, New York.

Into my hands recently came a rather attractive-looking sheet of large stamps, vaguely sketching, in color, huge buildings under construction, water-front developments and busy shipyards. Printed on these in big letters were slogans, such as "Plan Buildings Now," "The Early Planner Catches the Building Market," "Your Architect Should Plan Now." I have been considering whether this is mere propaganda wholly in the interest of the building fraternity, or a matter which really affects the interests of those who sooner or later expect to build. Especially have I in mind the planning and construction of hospital buildings.

No type of housing should be planned with more searching study and careful consideration than the hospital. Its efficiency for service, its economy of first cost and maintenance—in fact, its entire value as an instrument of service to the public—is determined by the way in which the building is planned and the thought and study that give the correct solution for the particular case involved. Failures in hospital planning have, in too many instances, been the result of superficial consideration of these problems, owing to the pressure that usually weighs on the architect, the consultant, and building committee, and their joint desire to get the plans finished and the building started in the shortest possible time. A problem of such great complexity as the modern hospital should be a study of many months by those engaged in the perfection of the plans. It should be a study given with a free mind and concentration of attention, and with the time made available for the reaping of the results of successful features of every hospital that has been previously built.

Visits should be made to numerous hospitals of character similar to the one to be built where the latest and best-studied ideas in planning and detail have been expressed; consultations without number should be held amongst those interested in the production of the plans; sketches should be made and destroyed and made again; each room, each part and each detail should be considered from every conceivable viewpoint; and each should be thought out in view of every use to which it may be put, as regards its economy of space, its economy of material, and its fitness for its present purpose and possible future requirements.

Efficient planning and building can be accomplished only through systematic organization, and this involves much time. My views on the proper organization for hospital construction were presented in a paper on "Building the Hospital—Organization and Methods," in 1915, and I will not further enlarge on this subject at this time.

Too many hospitals are planned after they are under construction, very much to the detriment of the adequacy and economy of the entire plant. Have your planning done while you are planning, and not while you are building. Study the thousand and one problems when an improvement means the rubbing out of a few lines instead of when it involves the pulling down of a few walls.

Now, all this takes time and more time and assumes a freedom of preoccupation by the architect and his collaborators.

To get the best results in planning will be impossible

\*Read at the Twentieth Annual Convention of the American Hospital Association, Atlantic City, September 24-28, 1918.  
† THE MODERN HOSPITAL, February, 1915.

when the architects, engineers, and consultants are busy, as they surely will be after this war is finished. The time for thorough and efficient study is not when these men are busiest; and, from all indications, the declaration of peace will be the signal for literally thousands of building operations of all kinds all over this country to be suddenly released from their dormant condition. It is not exaggeration to say "thousands," for there is scarcely an architect who cannot tell you that anywhere from a dozen to a hundred building propositions of which he knows have been postponed until the war period is finished.

To produce the best possible hospital building, the ideal condition would be to get the most competent architect—and get him now—for at this time the client will get a measure of attention and a kind of service that he may never get again. Civil building has practically come to a standstill; architects who have government work are few and far between; and the architect now has the opportunity to plan leisurely and thoroughly without the diffusion of attention and confusion of interests that are entailed when he is trying to produce simultaneously a dozen different projects in the minimum time.

While the building of new hospital structures has been suspended, the constantly growing demand for hospital accommodation has not changed. The same condition exists in the case of school buildings, apartment and office buildings, and nearly every other class of building. Therefore, the undoubted rush and resultant congestion in building matters that is bound to occur directly after the war will mean, too, difficulty in starting new enterprises, for delay always goes with congestion. Fortunate then will be the man who has given eight or ten or even twelve months to the study of his planning problem, for he will be among the first starters when the word is finally given and will undoubtedly get his bids and contracts and his orders for materials placed before a surely glutted market will further boost prices of all building materials. At least he will know his needs and be better able to gauge the markets and act at the most propitious time and without the usual delays.

After the Civil War prices advanced and continued to rise for a number of years until the panic of 1873, when they were at the lowest ebb. Slight reductions in the cost of building materials may be expected to occur directly upon the close of the war, but these can only be of minor importance, because the factor of labor, the cost of which will not be reduced, is a large element of the cost of materials. These first slight reductions in costs will all be brought about in less time than that required for the preparation of plans and specifications for a building of any considerable size. A reasonable stability of prices may then be expected for a long time.

Mr. W. O. Ludlow, architect, tells me that his recent experience in the planning and supervising of the construction of three large hospitals has demonstrated that never before has care been so essential in the selection of building materials. Different materials may be used to accomplish a certain result. The recent and varying changes in the cost of all building materials lends the utmost importance to the exercise of judgment and the use of ample time in so planning the building as to economize in the use and cost of materials. Mr. D. D. Kimball, consulting engineer, emphasizes the fact that such care is especially important in the selection of the character and quantity of materials used in the mechanical equipment of hospitals, for the reason that such equipment is constructed entirely of metal, a material in which the advance in cost has been most marked. Time for the careful selection of material throughout is, therefore, of the

utmost importance. Mr. W. T. D. Mynderse, architect, of Schenectady, N. Y., who has just completed the Mary McClellan Hospital at Cambridge, N. Y., which is the latest hospital in America, has expressed practically the same opinion as that of Mr. Ludlow and Mr. Kimball.

And labor costs—will they sag?

In conversation with a successful and well-known financier-philanthropist and social democrat a few days ago, I ventured the statement that labor would not come down in price after the war. "Yes," he said, "economic conditions will take care of that; but, aside from that, we who are interested in the welfare of the laboring man propose to see to it that they do not come down." I am quite convinced that my friend's judgment is correct; labor goes up but never comes down until a panic comes, which I presume we may expect when the European nations get on their feet again and begin to compete against our high-priced markets.

We have frequently heard criticism that the government or war hospitals should be planned and constructed differently, or in accordance with the personal idea of the individual. These remarks are usually based upon a very limited knowledge, hearsay, ignorance, or an isolated case, and not of the salient points or the situation as a whole. We all may differ somewhat as to the method of development and the types and plans, but in any vast and urgent undertaking some mistakes are certain to occur. Unless we have a full and complete knowledge of the situation, therefore, thoughtless criticisms do not help, and unless presented in the proper spirit and form, they are only a hindrance. The able hospital authorities in the Surgeon-General's office have had before them an undertaking of vast magnitude, and they have handled the situation ably and well. They, with the other associations, should receive only the highest praise for their rapid and remarkable achievements in providing hospitals and institutions in this country and abroad for the care of the sick and wounded soldiers and for their great consideration of the civil hospitals throughout the land.

The period directly following the war will be one of reconstruction in all parts of the world. The construction of new buildings and the reconstruction of old buildings will assume large proportions and will require the services of many able architects, engineers and builders. The architects, as well as others, have largely entered into the service of their country, and many have been forced to give up their profession. Upon the conclusion of the war, many of them will undoubtedly not again be found in the field of architecture. As in the case of other business men, much difficulty is going to be experienced in the reshaping of old lines of business. This, however, is not the case with the medical man, who, by serving his country in the medical service, will be well equipped, and perhaps better equipped than ever before, to continue his profession immediately after the war. It is to be regretted that the professional services of the architect have not been more generally utilized by the government in such a way as to make possible the continuance of his work in his professional line. The same may be said of the work of the consulting engineer, in his field as specialist in the mechanical equipment of buildings.

As I turn again to the artistic stamps lying on my desk, which advise in no uncertain fashion, "America, Plan Buildings Now," "From Coast to Coast Plan Buildings Now," and "Building Preparedness to Plan Now," I feel that I have quite made up my mind that, even though this may be propaganda to help those engaged in the building industries to earn their bread and butter, which, indeed, is a hard task in these hard times, the

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wise man, the far-sighted man, and the man who believes to such an extent in preparedness that he actually prepares all of those who have the purpose to build, be it a hospital, a factory, or a church, will believe that there is real wisdom in the slogan "Plan Now."

### Abstract of Discussion

**MR. E. F. STEVENS, Boston:** I cannot let that paper go by without showing my profession's appreciation of the way in which Mr. Bartine has shown to the hospital people the great opportunities and the possibilities for them. Like Mr. Poquet's, my office has been depleted by the war, and I think that is probably true of the major part of the architects' offices. To plan now means a better opportunity for getting better results, and I think our profession owes Mr. Bartine a debt of gratitude for the way he has stood up for us.

**DR. J. B. HOWLAND, Boston:** I want to emphasize Mr. Stevens' point. Who of us haven't suddenly been called upon to build something in the hospital lien and regretted afterwards that we didn't give twice as much time or more to the planning?

**MR. F. E. CHAPMAN, Cleveland:** I think very few of us appreciate what it means to draw up a set of plans for a hospital. I say, from a good deal of bitter experience, that if you plan in haste you repent at leisure. You don't have to build your building now; you don't have to make any contracts; you can generally stand the architect off, but give him an opportunity to study your problem—and let me emphasize here that the architect should be consulted before you have made up your own mind as to what you want to do. He has a point of view that you can't possibly have, and you can't get a well coordinated functioning institution unless you get all of the benefits from all the minds that you possibly can.

**DR. A. SEABROOK, Philadelphia:** I don't believe there is a single hospital superintendent that will not echo just what has been said about building in haste and repenting at leisure. If a study could be made before and those details all worked out, certainly the work would be facilitated and economy and efficiency would be pushed ahead.

<sup>1</sup> After the completion of this paper I had occasion to communicate with the National Planning Bureau of Wilkesbarre, Pa., and received a letter from Mr. Edward H. Poggi, the manager, in which he volunteered facts of such vital importance as related to the reconstruction in the various countries after the war that I present the letter herewith:

"It will interest you to know that immediately before our entry into the World War there were only nine thousand forty-three architects in the entire United States, represented by less than three thousand units or firms.

"The architect has been afforded small consideration in war-time affairs, and we shall undoubtedly find, after the war, that many who followed the profession either have been disabled or killed, or have found other lines of endeavor.

"Our experience has shown that the training of a man in the profession requires a very considerable period and exhaustive study. We shall not be able to manufacture architects overnight, nor will four years of college training suffice.

"Personally, I am very proud of the profession and believe that architects as a class are men of high moral fiber and generally extremely patriotic. A great many have closed their offices and the public has heard no protest. Our own men of the office of Sturtevant and Poggi are all in the service and on the other side of the water. All were volunteers and enlisted before the draft, although I have the highest regard for the drafted men, some of whom have undergone surgical operations in order that they might be accepted.

"The N. P. B. has spent more than \$7,000 in an endeavor to arouse the general public to the necessity of planning buildings at this time, and by that I mean that amount over and above all receipts, and it has been successful in arousing interest in thirty states. The effort will, I am sorry to say, receive less impetus in the future, as our assistants have gladly surrendered to war work, and the writer is awaiting his passport at this time for overseas service in the Y. M. C. A."

### SOCIAL SERVICE AND DISPENSARY ADMISSION SERVICE\*

#### Worker at Desk an Administrative Aid—Psychology of Individual Patients Essential to Successful Dispensary Treatment

By JANET THORNTON, Acting Head Worker, Social Service Department, Boston Dispensary.

Social service in hospitals has been adjudged of some value from two points of view, by two groups of appraisers. To administrators it has seemed an aid by virtue of its habit of individualizing the patient. Under its scrutiny he becomes not only a person with a disease, but one with a home and a job, and all that is fundamental to personality. To physicians, social service has proved an aid by virtue of an extension of the same habit; having individualized the patient, lifted him from the stream of patients, and placed him in his social setting, as it were, social service can contribute knowledge essential to planning treatment and influence helpful in carrying it on.

At the admission desk of a dispensary, a social worker is primarily valued as an administrative aid, designing, by individualization of each case, a deeper, more thorough handling of the problem of each. I shall try in a brief statement of routine to describe the way of using this aid, its cost, and what development appears ahead. Furthermore, I shall try to show how it connects with social service, described above as doctor's aid—viz., by extension of itself through the clinics, applying itself to every case (rather than to the few selected cases, as was the earlier method of social service) and thereby preparing a complete and correct basis from which those patients who need assistance to remove some obstacle to treatment may be selected from those able to carry on treatment unaided.

#### RELATIONSHIP TO THE ADMINISTRATION

Whether doctor, nurse, clerk or social worker has charge of the admitting, certain elementary functions have to be performed: first, all applicants must be registered accurately by name, age, address, name of parents, husband, wife or guardian, and other information sufficient to identify the individual among a multitude of others; second, the essential features of each one's malady must be grasped and he must be directed to the proper clinic; third, his eligibility to the care requested must be determined. For most institutions two broad considerations determine eligibility (any others, as residence, etc., being merely local). These two are previous treatment elsewhere, and financial status.

*Previous Treatment.*—Of this matter some acrimonious discussion has taken place and some rather hide-bound, harsh regulations have been practised; or rather, practice of them has been pretended. Each case in which previous treatment is reported must be considered on its own merits after noting all the circumstances, and the patient's ultimate welfare must be the deciding factor. If another doctor has recently studied the case, not only is repetition costly, but it delays treatment of the disease, and in the end the patient suffers. Recommending return to the former treatment is a good general rule, and, when an applicant can be made to understand that just reasoning and genuine consideration for him lies behind your recommendation, you have added something of value to his education. The trivial and unintelligent use by patients of excellent medical service is one of the most vexatious problems in dispensary administration. Yet

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because a man has gone once to a private physician, he need not be refused at a public institution. Whether rich or poor, he has the inalienable right, if dissatisfied, to ask the advice of other doctors.

*Financial Status.*—A similar detailed individual inquiry has to be made to learn the income of the applicant and the number to live on the income, at what employment he is usually engaged, what usual rate of wages he receives, how many children or others are dependent, how many contributing, and so on. And again, each doubtful case requires handling on its own merits. One who is to pass judgment, accepting or rejecting the applicant, will find he must glean knowledge from outside the walls of his hospital. He must know what it costs in his community for proper living, and what it costs for proper medical care. For instance, a single man or woman rooming alone lives at a much higher per capita rate than a member of a family, older children cost more than little children, etc. It will also prove helpful to have some background information about standard wages in the trades, industries and other employments of the community. In the last year wages have shifted in eccentric fashion. Unskilled laborers who could barely earn \$15 a week are drawing \$35. Even girls who formerly got \$10 are drawing as much as \$40. Sons and daughters have doubled their father's pay. Yet all the while it is obligatory to bear in mind that many wages have not been advanced at all, and relatively few commensurate with increase in prices. The cost of the essentials of life have, as everybody knows, advanced steadily, food 67 percent and clothing 75 percent in four years. The dollar has shrunk to 54 cents by comparison with four years ago. But, given a certain income, it is not very difficult to reckon how much of it can go for the purchase of medical services, or what priced services the sum allows—whether private office rates, pay clinic rates (where such exist), the nominal rates of charitable institutions, or a part of these rates; or if, as frequently happens, there is no margin but rather a deficit, the admitting officer may have to see that no charges at the hospital are made for treatment.

In practice I have found this matter of remitting the dispensary charges one of the most important and the most taxing parts of my task at the admission desk. The director has allowed me perfect liberty in the matter, and I have had the assistance of a dozen social workers and nurses in clinics, and yet we have never at any time more than half covered the need, so difficult to administer is the problem. In round figures the Boston Dispensary cares for some 4,300 individuals a month, with an average of over two visits per capita, and of these individuals, 550 have all or part of our fees remitted for some 1,500 grants of admission, medicine, x-rays, etc. The amount remitted averages somewhat over \$300 a month. For five years the ratio of free to paying cases has varied little, about one to seven, or about 15 percent free. The families of widows, deserted mothers, disabled fathers, fathers with too low wages or too numerous children, remain relatively fixed quantities. The burden of attention to the 550 requiring remission would not be so oppressive if one had the comfort of having attended to all who needed the service; but we know that at least 500 more, who should not, are paying. For example: among the 4,300 individuals treated a month, 700 have come from families living on \$10.50 to \$12 a week, and of these 83 percent, or all but 120 persons, have paid all dispensary charges. One need not be a C. O. S. expert to realize that no family could live properly on that income in the autumn of 1917, when these figures were tallied. The

Boston Dispensary has since then definitely ruled that remission of fees after the first admission is part of planning for efficient treatment, and the burden of detecting the need and recommending the remission rests on the clinic executive. Here I believe we are on the way to improvement, and I shall refer to the matter later in speaking of the relationship of the desk to social service.

Of the items under the financial status of patients that offer problems to the admitting officer, the remission of fees bulks largest perhaps, although that of deciding when an applicant can be referred to private practice takes more learning in medicine and arithmetic. No one can predict in a particular case the exact cost at private rates; yet one can know what similar or typical cases have cost. This information about an essential expenditure seems to me necessary for an admission officer to have and use. A few estimates for Boston of the relative charge for treatment in private offices, pay clinics, and free dispensaries may be suggestive.

1. Baby Feeding. Baby three months old supervised for thirteen months by children's specialist; during same period surgeon treats abscess of neck, and ear specialist, acute otitis media, both ears.	\$ 89.00
Cost in private practice.....	..... 4.20
Cost in dispensary.....	.....
No pay clinic.	
2. Diabetes (adult). Duration of treatment, one year.	
Cost in private practice (hospital, 4 weeks, \$60, included) ..	178.00
Cost in pay clinic.....	84.50
Cost in dispensary.....	64.95
3. Carbuncle. Duration 38 days.	
Cost in private practice.....	25.00
Cost in pay clinic.....	8.00
Cost in dispensary.....	.95
4. Needle in hand (septic) x-ray, operation under gas.	
Cost in private practice.....	24.00
Cost in pay clinic.....	6.50
Cost in dispensary.....	2.46
5. Refraction and glasses.	
Cost in private practice.....	16.00
Cost in pay clinic.....	5.50
Cost in dispensary.....	4.35
6. Acute gonorrhœa in men, average duration 175 days.	
Cost in private practice, with medicine.....	195.00
Cost in pay clinic with medicine.....	59.50
Cost in dispensary.....	48.25
7. Syphilis (adult) first year.	
Cost in private practice.....	260.00
Cost in pay clinic.....	52.00
Cost in dispensary .....	42.00

#### RELATIONSHIP TO SOCIAL SERVICE

You may ask why be at such pains to record a patient's situation in life, what trade the man follows, how many children the woman cares for, etc., when we know the brief desultory course of much dispensary work. Of the entire number of Boston Dispensary cases 40.5 percent come once only; 55 percent are ended in a week. The turn-over is 75 percent to 80 percent every quarter. To be sure, a fair proportion of this work is properly finished and closed from the out-patient point of view, even of the one-visit cases, whether they get a tooth filled or enter a hospital bed to die; and some may be properly dropped because of their insignificance; but it is conservative to say that one-third are lost before getting what they need. To the one who met these people at the entrance, beheld their eagerness for better health and encouraged their hope, the effect of wasting these thousands of human opportunities becomes intolerable. You doubt, as things are, why you should be at any pains to understand the people, and you determine to seek the causes of this wasted effort, for the hospital expends no less effort on the cases that fail than on those that succeed.

The waste of four or five minutes at the admitting desk to sketch a patient's environment is, of course, little beside the waste of the doctor's time and thought spent for careful diagnosis and spent in vain if the patient fails to return for treatment. From my post at the admitting desk I have watched for several years the

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ineffectual coming and going of patients, especially the hopeful mood in which they first approach; also I have watched the meager returns from follow-up letters and visits. A multitude of instances have brought me to one conclusion as to the main reason why patients fail to carry out treatment. Human perversity may account for some failures; tedious delays at clinics and unsuitable clinic hours account for more; but the main reason is that the patients do not understand the plan of treatment, or what they are expected to do. The great failure on the part of the hospital is the failure to understand the psychology of the patient, *a failure which is not medical, but social*. The skill and ingenuity of the physician in establishing diagnosis and in directing proper treatment may be above reproach, yet, if the patient is not made a partner to the scheme, the skill, certainly in out-patient department service, is unavailing. Mechanical follow-up devices, such as appointment slips, post cards, form letters, even visits, have yielded very poor returns for the money outlay, at best, 35 percent returned, and 12 percent otherwise accounted for.

Of 1,534 appointments made in two recent months by the doctors in our Children's Department, only 672, or 44 percent, were kept. Eight hundred and forty-eight reminder post cards were sent to the patients who had not been heard from, and 244 of the new appointments were kept. Two hundred and fifty-three letters were then sent and ninety-two patients returned. Ninety-nine visits were made to the more serious cases still unaccounted for, and only twenty-four more returned. To summarize, 1200 notifications were sent, and only 360 children thereby recalled to a privilege they should have sought without urging. These, added to the number who kept the first appointment, make a total of 1,032, or 67 percent of cases successfully followed, while 33 percent of the whole remain as failure to the institution.

A better remedy is, I believe, being gradually developed, and is what I referred to at the beginning as an extension into clinics of the kind of service rendered patients at the admission desk. All the detailed personal information about the patient gathered at the admission desk is recorded at the top of the medical history card and sent to the clinic. After the usual diagnostic procedure, the doctor returns the card to the social worker with a more or less precise recommendation for the patient: "Do thus and so, and return to me on such a date." "Thus and so" may mean get laboratory reports, get teeth treated, stay in bed, and what not. From the data on social and economic affairs which the admission desk has furnished, the social worker has a footing for an intelligent interview with the patient as to how the doctor's plan can be carried out.

Take the case of a shop girl with acute gonorrhea. She works from eight to five for \$12 a week, and lives alone in furnished lodgings. Outside of a possible moral difficulty, which for simplicity we here exclude,<sup>1</sup> the only obstacles to treatment are the patient's lack of understanding of its importance, and the embarrassment of getting leave from work twice a week.

If the social worker, acting as doctor's aid in this case, can give the girl a clear understanding of her own disease problem, if the girl is willing to take the treatment, and if she proves able, unaided, to manage the work adjustment so that the attendance is regular, the social worker

may well decide that the patient does not need social service further.

Or, take another familiar situation—the sick baby in a family of small children where the mother can neither leave the children at home alone while she brings the baby to the doctor nor bring them all with her. If her mind is made to understand the treatment ordered, her willingness to carry out her part of it will nearly always follow. She may or may not be able unaided to accomplish this. If she is, her case requires no more from the social worker than advice and encouragement from time to time. Otherwise, the social worker proceeds in the usual way to render aid.

In a series of cases from a general adult medical clinic handled in this interpretive way by a social worker, two significant things were revealed. First, the social worker discovered that about half the patients had no clear notion of what the doctor expected of them, and, when it was explained to them and certain obstructions, such as dispensary charges beyond their means, were removed, they went cheerfully about to obey orders; second, the doctors found the aid more helpful than any administrative assistance previously rendered them. Numerically, the percentage of appointments kept was practically the same as that in the children's department after 1,200 notifications were sent forth (65 percent). Now, if, from those patients not keeping up their treatment, the really important cases could be selected, and a letter written to the patients, or a visit paid by the worker they had come to know, to discover and if possible remove the obstacles (be it discouragement, distrust, or financial difficulties), I believe the letter or the visitor would meet with welcome, because at the patient's first visit the ground was prepared for mutual understanding. I know a syphilis clinic where a procedure similar to the above has been for some years in operation with an average of 90 percent of cases kept under supervision—also a group of 193 infantile paralysis cases in an orthopedic clinic carried over twelve months with an average of 95 percent.

It is for this type of complete medical and social service that a social worker at the admission desk prepares; she prepares not only the formal notation on the record, but she prepares the mind of the patient to expect it. The Boston Dispensary has kept up the social experiment at its admission desk six years this autumn. It costs about \$60 a month, which is roughly three cents a patient. Although social workers are hard to find nowadays, the social service department has agreed to continue for the year to supply two workers every morning for two hours each, for actual admitting, one of them to remain two hours longer to adjust the remissions of fees for prescriptions, anesthetics, etc., and assist patients in numerous interpretive ways still inadequately handled in clinics. The social service department assumes the duties with very definite purposes. First, it regards them as being an administrative task, which, in spite of obvious medical and clerical aspects, demands primarily social adaptation. Whether doctor, nurse, clerk, or social worker holds the admission desk, the work performed must be of a personal social character. Second, the social service department is willing to assume the duties because they offer very good educational opportunities to social workers in dealing with large numbers of people and with complex administrative affairs, and for acquiring a wide, even if superficial, acquaintance with medicine. Third, and of greatest weight, they are an outpost of value for the clinic development advocated, which some medical social workers believe is to be the next big general advance in their profession, as well as in dispensary administration.

<sup>1</sup> I would not seem to minimize the need in syphilis and genito-urinary departments of thought for the moral difficulties in which patients find themselves. Thought and help for them in the matter are assumed as an essential of a well-run department, even as knowledge of pathology or surgery; and like these, or like fresh wind and sunshine, it pervades the atmosphere enveloping each individual, but is not catalogued and tallied by cases.

### HIGH-PRESSURE DRESSING STERILIZERS OR AUTOCLAVES

#### Principles of Sterilization Involved—Construction and Materials Used—Summaries of Steam Heat Penetration Tests Conducted at the University of Wisconsin

By S. GWYN SCANLAN, G. L. LARSON, and PAUL F. CLARK, M.D., Madison, Wis.

High-pressure dressing sterilizers, or autoclaves, for the sterilization of surgical dressings, in the modern type of apparatus, are constructed—built up—with an inner shell of seamless drawn copper or brass and with an outer copper cylinder, the cylinder fitted with a bronze back.

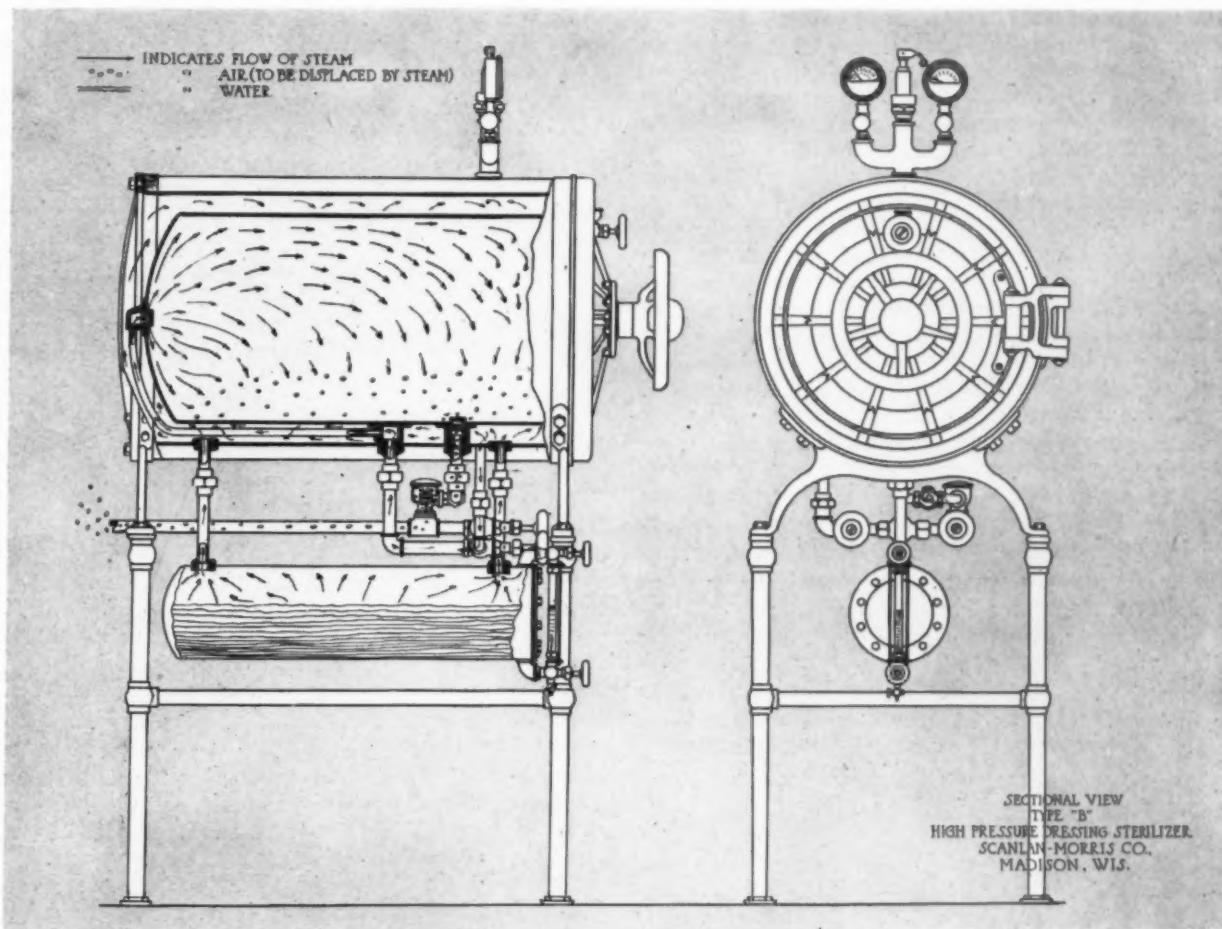
A heavy cast-bronze machined ring, or door collar, is inserted between the shell and cylinder at one end, and

The sterilizer is equipped with a compound gauge registering steam pressure in pounds and vacuum in inches obtained in the sterilizing chamber and with a steam gauge registering steam pressure in pounds obtained in the steam jacket and in the steam generator.

A nickel-plated brass jacket surrounds the body of the sterilizer; water gauge fittings, valves, etc., are finished in nickel, and the sterilizer is mounted on a white-enamelled tubular steel stand.

Various heating mediums are employed to generate steam in the apparatus, such as high-pressure steam from an auxiliary boiler (the steam circulating through coils in the sterilizer), gas, electricity, etc.

The materials used in construction and the method of construction vary with various manufacturers; the prin-



Sectional view high-pressure dressing sterilizer.

the shell and cylinder at this end riveted steam-tight to the right.

Below the cylinder is suspended, by means of brass fittings, a steam generator, the generator made from a seamless copper shell, fitted with a cast-bronze removable head.

The space between the shell and cylinder forms a steam jacket that entirely surrounds the inner shell (sterilizing chamber) except at one end.

The sterilizer door is of cast bronze, with a machined face that presses up, when the door is closed, against a gasket in the door collar; the door swings on a heavy double hinge. Radial locking bars on the door, by means of a handwheel, are automatically thrown under the heavy door collar and permit of the sterilizer door being closed (locked) steam-tight.

ciple of sterilization, however, with few exceptions, remains very much the same, consisting, as it does, of partial evacuation of the air in the sterilizing chamber obtained by means of a steam ejector, and of then subjecting the dressings in the sterilizing chamber to steam at a pressure of from 15 to 18 pounds for a period of from twenty to thirty minutes.

Not satisfied that the usual method of procedure followed in the sterilization of surgical dressings at all times and under all conditions (adverse conditions such as are found when the sterilizing chamber is crowded with dressings or an inexperienced nurse is operating the apparatus, etc.) insured absolute sterilization, we conducted, in the steam engineering department of the University of Wisconsin, an exhaustive series of tests covering steam pene-

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tration and temperature in connection with the sterilization of surgical dressings placed in the sterilizing chamber of an autoclave. The tests and the records secured from the tests brought out well-defined, fully established scientific facts that in the designing of sterilizing apparatus heretofore had not been given sufficient consideration:

First, the drawing of a vacuum of from 10 to 15 inches only partially evacuated (removed) the air in the sterilizing chamber; the air remaining in the sterilizing chamber was sufficient to impede seriously the thorough penetration by steam of closely packed dressings. Second, the steam gauge recording the temperature and steam pressure in the sterilizing chamber, owing to the presence of air in this chamber, records incorrectly the steam pressure, and, consequently, records incorrectly the degrees of temperature obtained in the sterilizing chamber.

Dalton's law in physics states that when air and steam occupy the same vessel, the pressure in that vessel is equal to the partial pressure of steam and air, and that the temperature will correspond to the *partial pressure of the steam only*. Test No. C, as made by one of us (G. L. L.), shows conclusively that with a gauge reading of 18 pounds steam pressure, corresponding to a temperature of 254 F., with air in the sterilizing chamber, the temperature in the chamber became constant at 242.5 F. and that the maximum temperature of steam at 18 pounds pressure, 254 F., was not reached and never would be reached with 18 pounds registering on the steam gauge, *as long as the air in the chamber remained mixed with steam*. Test A, in which the sterilizing chamber was freed of air, showed the maximum temperature of steam at 18 pounds pressure, 254 F., quickly obtained and maintained.

Following are given a summary of steam heat penetration tests by one of us (G. L. L.) and a report (by P. F. C.) relative to the destruction of bacteria with steam employed as the sterilizing agent.

#### SUMMARY OF REPORT OF STEAM HEAT PENETRATION TESTS IN CONNECTION WITH A 16 BY 36-INCH AUTOCLAVE.

*Object of Tests.*—To determine heat penetration of steam into the interior of materials, bandages, cotton, etc., placed in the sterilizing chamber of an autoclave; and to study the effects produced by an automatic air and condensation ejector connected to the sterilizing chamber.

#### RESULTS, TEST A, STERILIZER EQUIPPED WITH AN AUTOMATIC AIR AND CONDENSATION EJECTOR.

Time (minutes)	Temperature (Fahrenheit)
0	70
5	231
10	250
17	253
18	254
20	254

#### RESULTS, TEST C, STERILIZER NOT EQUIPPED WITH THE AUTOMATIC AIR AND CONDENSATION EJECTOR.

Time (minutes)	Temperature (Fahrenheit)
0	70
5	210
10	240
17	242.5
18	242.5
20	242.5

*Method of Procedure.*—A 1-pound roll of cotton was used in making the tests. The wires of a thermo-couple were inserted in the autoclave chamber through a stuffing box in the door, and the roll of cotton was wrapped tightly around the junction of the thermo-couple in such manner as to preclude heat by conductivity of the wires reaching the junction of the thermo-couple; the roll of cotton was then placed in the autoclave and the door closed; a stop watch was started the instant steam was let into the autoclave chamber, and the readings of time and temperature were taken until the temperature became constant. The temperature readings were made with a millivoltmeter

and a steam drum was used at the University of Wisconsin to calibrate the instrument to read in degrees Fahrenheit.

Test A was made with the sterilizer equipped with an automatic air and condensation ejector. Test C was made with a sterilizer not equipped with an automatic air and condensation release trap. In Test C a vacuum of 10 inches was secured in the sterilizing chamber before admitting steam to the chamber.

*Conclusion.*—These tests and a series of other tests conducted along similar lines of procedure show clearly the necessity of freeing the autoclave chamber of air. Air in the chamber not only retards penetration, but also prevents the temperature from rising to a maximum. Securing a partial vacuum (10 inches) in the autoclave chamber removes a portion of the air only. The automatic air condensation ejector, used in connection with Test A, works admirably, releasing and freeing automatically the autoclave chamber of air and condensation.

#### REPORT OF STERILIZATION TESTS

*Object of the Test.*—To determine, under ordinary working conditions, the efficiency of steam sterilization in an autoclave equipped with an automatic air and condensation ejector.

*Method of Making Tests.*—A pound roll of absorbent cotton was used, and into the center of this roll were introduced small gauze squares soaked respectively in cultures of *Bacillus coli*, *B. anthracis*, *B. subtilis*, *B. vulgatus*, and an unidentified spore-forming organism isolated from some contaminated Loeffler's blood serum. The first mentioned organism is a common inhabitant of the intestinal tract and a non-spore-former. All the other organisms are aerobic spore-forming organisms, *B. anthracis* being the causative agent in anthrax, and the others being non-pathogenic organisms found in dirt and very resistant to all germicidal agents. Cultures of the spore-former used were at least three days old, and, on microscopic examination, showed abundant spores, so they would offer marked resistance to the destructive influence of steam. After the infected squares of gauze had been introduced into the roll of cotton, the cotton was wound round the gauze squares as tightly as possible and tied in several places with heavy cord.

Twenty-two simultaneous tests were made with two autoclaves. An autoclave equipped with an automatic air and condensation ejector was one, and the other autoclave used in making the tests was a standard type of apparatus of another make.

*Results of the Tests.*—As a result of the experiments, it was found with the organisms and procedure followed that no growths were obtained from the infected gauze in the autoclave equipped with the automatic air and condensation ejector when a period of seven and one-half minutes or longer at 17 to 18 pounds pressure was used. In several tests, the other autoclave used showed less effective sterilization, the culture *B. subtilis*, a spore-former, exhibiting growth after twelve minutes of sterilization at 17 to 18 pounds pressure.

The experiments and time tests made showed conclusively the value of the automatic air and condensation ejector, eliminating automatically, at it does, the retarding effects of air mixing with the steam in the autoclave chamber.

When surgical dressings are prepared with an autoclave chamber closely packed with a variety of materials of different degrees of density, the factor of safety would be given due consideration by sterilizing at from 17 to 18 pounds pressure for a period of 20 to 30 mintues.

## SOME LESSONS THE WAR HAS TAUGHT\*

**In Time of War Prepare for Peace—War Time Psychology  
Forced Us to Think of Men in Terms of Groups,  
But It Is the Individual Soul that Counts  
in Every Sphere, Including Hospitals**

BY WILLIAM O. LUDLOW, Architect, New York City

The war has taught its lessons and also brought its evils. And, as a result of the period of struggle, there exists today a serious menace, which, although it originated before the turmoil, has been given tremendous impetus by war methods and war psychology. It is a way of looking at things that for a time made Germany the strongest and most diabolical nation on earth. It is this—the conception of the man-appointed group as the vital entity, rather than the God-given individual human soul. May God protect America from this damning philosophy. Yet we are today in gravest peril of this very thing.

With increased density of population comes the tendency to treat humanity in the mass, or rather in masses, to think in terms of platoons, companies, and corps. Germany worked this to a finish—and it was her finish.

Even in democratic United States this tendency has been accelerated by the platoon-company-corps idea, not merely in the military, but running through all our activities. Speaking as an architect, I admit that the repeated handling of the planning problem for the care of the sick in groups tends to make the planner think in terms of groups and to deaden the fine appreciation of the comforts—yes, the rights—of that which was made in the image of the Deity, the individual soul.

I desire to point out here, by way of illustration, some ways in which I believe that we are failing lamentably in hospital design to pay decent respect to individuality. And I am going to include in the "we" the doctors and hospital managers, for, after all, we do about what they tell us.

I would mention then, the curious phenomenon that while we have striven for years to promote healing by proper environment, nearly all our effort has been to promote negative conditions—no noise, no smells, no ugliness. How much have we done in the way of pleasant sounds, agreeable odors, pleasure-giving appearance? I claim that these are often quite as effective as the doctor's medicine, and often even more effective. I speak from experience; the far-away sound of music in the early evening, and a dear, old familiar picture on the wall did more for me once, I am quite sure, than what I took from the spoon. And did I get these in a hospital? No, indeed! Absence of all sounds and blank, whitened sterility must reign there.

But I may be permitted to add a word as to some things in the physical aspect of the surroundings of the patient which, I believe, tend toward mental health, that handmaiden of bodily well-being.

I like to try to think, then, of the word "hospital" in its derivative sense. I would wish that it should not bring to mind a huge caravansary of austere aspect without and glaring white sterility within, a pile without cheer and without welcome. Gloom of aspect of walls inevitably breeds gloom of mind, and unbroken whitened sterility of walls and ceilings produces sterility of thought in the sick mind, which longs to be led out of itself by pleasurable impression from without. Why not think, then, in terms of "home for the sick?"

\*Condensed from article read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

I am entirely convinced that we shall commonly see the hospital of the near future with tinted walls; with interesting but simple stencil on ceilings and at angles; with living plants here and there, and pictures, not necessarily framed in the conventional and dust-accumulating fashion but set flush with the walls and glassed over, arranged, perhaps, so that they may be changed occasionally; and even—shocking to the thought of tradition—plain, washable chintz hangings of quaint design and appropriate color to break the plainness over which the weary eye everlasting roams.

Another illustration of our tendency to forget the individual and think in terms of the group has to do with the ward. I believe that the public ward idea, where the soul longing for a modicum of privacy (and what soul who has lived in a home does not?) the public ward, where such souls now lie exposed to the gaze of twenty others under the most trying circumstances—shall give way, whenever extreme stint is not imposed, to a degree of privacy.

The beast and the savage know not and care not for privacy. Modesty has to them no meaning. Forced publicity to human beings, by exposure to others at times when privacy is most desired, not only tends to break the fine web of refined feeling, but brings about a more or less acute mental anguish inimical to bodily health.

I believe that the small private room will in the future displace largely the public ward, or, in many instances, a low separating partition will be erected between beds. In the design of the New Cumberland Street City Hospital, now being erected in Brooklyn, we took a step in this direction, with considerable gain in floor space, by placing low partitions dividing the ward into groups of four beds, the beds arranged like a little ward of four on an axis normal to the main axis of the room. In another instance, we carried this still further, isolating, in this way, each bed. These low partitions are solid to such a height that the patients in the different groups can not see each other but through the glazed upper portion the nurse can survey the room. This arrangement has also the advantage that no patient faces the window light.

The objection to the private room is cost, but cost must be considered as relative to service rendered; otherwise, we would be housing our sick permanently, as the government is housing its sick temporarily. Viewed in this light, the actual cost may be less. One of our foremost hospital managers, now a colonel in the United States Army, has arrived at the conclusion, drawn from experience, that the shorter period of confinement of each patient in a private room makes the scheme one of actual economy.

And so I have claimed that architects have failed in some respects to recognize properly that the good of the group is in fidelity to the individual. I also claim that the present military necessity of thinking in terms of groups will greatly aggravate this insidious kind of failure.

But perhaps a more serious aspect of this matter is the change that war practice will, without the shadow of a doubt, eventually bring about in the medical profession. I have seen the thing begin to work in my own profession. I have seen a group of architects engaged in government work entirely changed in mental attitude toward the finest and most vital of the ethics and practice of our professional work by the driving hand of war necessity. They are trampling on the very elements that have in the past few decades lifted architecture in this country from an artisan's job to a high plane of efficiency and ethics.

I will ask you to consider, then, what is likely to be

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the effect on our medical men and surgeons each of whom have been treating perhaps a hundred or more life-and-death cases each day.

The man whose methods and mind remain unchanged by this necessary wholesale business will be surely the superman. I do not say that such training will not do great things for many of your profession, but I do claim that the fine edge of feeling and consideration for the individual, which is real culture's best gift to civilization, will be blunted.

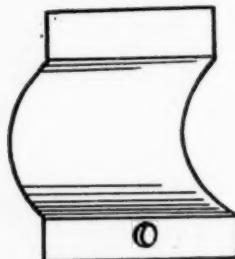
The war has advanced some things by a century, but years will be required to live down some other things; and one of these is the apparent rejection of that foundation stone of democracy—respect for the individual.

Some one has said that the finest thing the Christian religion has given to the world is this respect for the individual. Some of you believe, as I do, that Christianity is the greatest force the world has ever seen and that Christ was the greatest figure of all time. Napoleon studied his life for years, trying to find out wherein lay Christ's power over men, wherein was his secret of leadership. He found the secret but could not use it, for Napoleon, like the Kaiser, dealt in humanity in the mass.

The great Napoleon is now a hideous memory. The Kaiser and his damning philosophy are fast sinking into ignominious insignificance. Christ lives eternally, for He loved the individual.

### To Prevent the Unsightly Pin Hole

A little bronze metal clip fastened to the door of each room will serve to hold messages concerning telephones, telegrams, and packages which have been delivered. It



is quite useful on doors of private rooms to hold such signs as "No Visitors," "In Fumes," etc. Colored cards may be used to indicate a special isolation. This will avoid the use of unsightly tacks, pins, and adhesive strips which so often disfigure the doors when signs are needed.

### Almost as Good as a Dog

A woman rushed hurriedly into the Boarding-Out Department office of the New York Nursery and Child's Hospital.

"I want a baby!" she exclaimed, almost without greeting; "I've just got to have a baby!"

When the answers to a few questions had been duly noted, she was asked: "And why are you so anxious for a baby?"

She brightened at once: "You see," she explained, in a most confidential tone, "I have just lost my dog—and I was so fond of him! You don't know how fond a person does get of a dog—I didn't know what I could do without him, so I just thought that I would come and get a baby, and then I would not grieve so for Jack!"

But she went away very unhappy. "I know that I could be just as fond of a baby as I was of Jack!" she protested at the door.

### HOSPITAL CARE FOR DISCHARGED SOLDIERS

#### Recent Enactment of Law by Congress Places Care of War Risk Insurance Cases in Hands of Public Health Service—How Appropriation of Ten Million Dollars Will Be Used

With the enactment by Congress of the law making provision for medical, surgical and sanatorium care for discharged sick and disabled soldiers, sailors and marines, the Public Health Service, to which this important work has been entrusted, begins a marked expansion of its hospital activities. Already, with demobilization just begun, the Treasury Department has under its care nearly two thousand beneficiaries of the War Risk Insurance. Within a very short time hospital and sanatorium care will have to be provided for a considerable proportion of the 24,500 soldiers, sailors, and marines discharged from active military and naval service because of tuberculosis, and for approximately 50,000 cases of psychoneurosis, epilepsy, and other nervous and mental disorders reported among the military forces up to December 1, 1918.

The law just enacted by Congress carries total appropriations of over \$10,000,000. Of this sum, approximately \$3,000,000 will be used to take over the hospital built by Mr. Hines in Chicago, and to equip and adapt it for use by the Public Health Service.

The sum of \$1,500,000 is set aside to establish a tuberculosis sanatorium at Dawson Springs, Kentucky. Nearly \$200,000 will be available for enlarging the Marine Hospital at Stapleton, N. Y. Over half a million dollars is provided for the construction of a hospital in the District of Columbia on Government-owned land; and \$900,000 is reserved for the construction of a complete hospital unit at Norfolk, Va.

The law sets aside \$1,500,000 to be held as an emergency fund to purchase additional lands and buildings in localities to be authorized by the Secretary of the Treasury.

In order to conduct the hospitals for the rest of the present fiscal year \$785,000 is provided.

In placing the care of these War Risk Insurance cases in the hands of the Public Health Service, Congress evidently saw the advantage of thus unifying Federal hospital activities. The Public Health Service already provides hospital care for merchant seamen, employees of the Mississippi River Commission, for the personnel of the United States Coast Guard Service, the United States Lighthouse Service, and United States Coast and Geodetic Survey. In addition to this, in recent years it has cared for injured civilian employees of the Federal Government under the Federal Compensation Act.

The large additional work which is thus thrown on the Public Health Service by these War Risk Insurance cases led the Service to provide for a considerable increase in personnel. At many of the established marine hospitals, additional attending and consulting physicians and surgeons are being appointed, the appointees being commissioned as officers in the Reserve of the Public Health Service. Similar commissions are being offered to high-grade specialists in tuberculosis, orthopedic surgery, psychiatry, and the like.

In order to reduce the cost of new hospital construction to a minimum, Congress provided that the hospitals at certain army camps be turned over to the Public Health Service. These include Camp Cody (N. M.), Camp Hancock (Ga.), Camp Joseph E. Johnson (Fla.), Camp Beauregard (La.), Camp Logan (Tex.), Camp Fremont (Cal.), and the nitrate plant at Perryville, Md.

The sum of \$750,000 is provided to remodel and adapt these hospitals to the uses of the Public Health Service.

Altogether it is apparent that Congress has carefully considered and met this phase of its responsibility toward those discharged from military and naval service.

#### KEEPING THE PATIENT UNDER TREATMENT\*

##### Most Important Phase of Work of Clinics—Follow-up Through Social Service Workers Proves Effective —“Strong Arm” Methods Sometimes Necessary

Under Dr. J. G. Wilson as chairman, the following interesting discussion formed part of the meeting of the out-patient section, and many superintendents struggling with this vexatious problem in their clinics will be glad to learn how it has been met by others.

**MR. J. J. WEBER**, Boston: The Boston Dispensary for a number of years has maintained clinics which did good work in the treatment of syphilis and gonorrhea, but with the beginning of the war and the organization of the national campaign for the control of venereal disease in Massachusetts, working through the state department of health, we found that it was exceedingly necessary and desirable for us to reorganize all our venereal disease work. Formerly we had three separate clinics where these diseases were treated—syphilis in the dermatological, and gonorrhea in the genito-urinary and gonorheal clinics. Now, for the purpose of efficiency we decided to organize those three clinics into a single department of the dispensary, and in addition to that we organized an advisory committee, whose function it was to establish the broad principles under which that department should be administered. That advisory committee consisted of the chiefs of the three clinics, the director of the dispensary, and a representative of the state department of health. Our clinics are held both in the morning and in the evening; the morning clinics are free and the evening clinics are pay clinics. The attendance averages a little over 300 per clinic day. During the past year in the morning in the syphilis clinic, we treated about 8,000 patients, in the evening clinic, 9,000; in the morning we treated about 10,000 male genito-urinary cases, and 15,000 in the evening, and about 3,000 women genito-urinary cases. Recently at the earnest solicitation of the state department of health we have opened up an evening gynecological clinic, which, of course, will treat many of the female genito-urinary cases. This work is done in cooperation with the national program for the control of venereal disease, and we are getting our material very largely through the activities of the Protective Workers of the War Camp Community Service and through such advertising as we secure through the announcements made by the lecturers who are sent by the war department to the various industrial plants where women are employed, and to the various department stores. In addition to this, we are doing some advertising in the public press and are also sending notices around to the various philanthropic and charitable institutions. We get a small subsidy from the state department of health of a thousand dollars, which we shall apply to this new clinic which was recently established. This is a subsidy that is given to some fourteen or fifteen new clinics that have been established throughout the state of Massachusetts; this state is manufacturing its own arsenphen-

mine now in fairly large quantities and we are getting that and giving it free to acutely infectious cases.

We have a follow-up system which has proved of the greatest value in securing continuous treatment for our patients. We have a visible index file, a visible index follow-up system, and when the record of the individual patient is brought to the clinic by the page and is prepared for the doctor, the clinical clerk takes his visible index off the file and attaches it to the record, and after the doctor has seen the patient he notes on this visible card the next date upon which he wishes the patient to return; at the conclusion of the clinic these cards are filed back under the visible file under the date indicated by the doctor, so that we have a check in that way upon whether or not the patient comes to the clinic; if, after a given period of time, depending upon the seriousness and acuteness of the condition, the patient fails to come in, then we send him a series of follow-up letters, and ultimately, if those do not avail, a social worker tries to see him. Then this follow-up system also enables us to carry out our duty with regard to reporting the incorrigible cases to the state department of health. If after six weeks' time a patient who has formerly been reported to the state department of health under law by number fails to put in an appearance, we are obliged to report him by name; the state department then sends that name with the address of the patient to the local department of health, wherever the man may happen to be, and it is their function to bring him back under treatment.

**MR. J. R. HOWARD**, New York: What individual keeps track of all the cases that haven't shown up, what their physical condition is, when to send for them, and how?

**MR. WEBER**: The clinical executive works in very close cooperation with the physician in charge of the clinic, and by going over the cards very frequently they are able to decide as to which cases shall be called back and which may be given a little longer time before they appear.

**DR. A. R. WARNER**, Cleveland: In our clinic every case is given a follow-up card on the visible index system, which has a little place to check the instructions of the physician about six months in advance. That man is to return in one day, one week, one month, or whatever it may be. The card is then put on the corresponding rod, of which there is one for every day in the month, and as the patients come in their cards are taken off and they go to the clinic with their history and get a new date checked on them. The cards of those who didn't come in that day are left on that file and our attention is thereby called to the fact that the patient did not come; then a day or two of grace may be given or may not, or a postal card may be sent that very day saying: "Your engagement with the physician on this day has not been fulfilled. Please report at once." If that postal card does not receive attention, sometimes a letter is sent making the thing plain, and sometimes a social worker visits the patient and makes it plainer.

The development of so-called "venereal disease" clinics, particularly syphilis clinics, has been rapid. The change in public opinion has come rapidly, and we can get away with things now that would have been more or less difficult a short time ago. Just for example, when a case of syphilis comes into the clinic, the patient is told what is the matter with him; that the thing for him to do is to come for regular treatment; and that it may take a long time. The chances are that the question of salvarsan is put up to him the first day—and there are very few patients who have gone through that department without getting their little dose of salvarsan when needed, whether they paid for it or not. If they are refractory and

\*Discussion before the Out-Patient Section of the American Hospital Association at its Twentieth Annual Convention, Atlantic City, N. J., Sept. 24-28, 1918.

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say they don't believe that that is the trouble, or that they won't be treated, and that they will go to some doctor outside, they are asked to state who that doctor shall be. If they give a proper reference, then we report to that doctor and see that they come. If they don't come or if they refuse to have treatment, the one thing left for us to do is to call up the police. Such a patient is a contagious person and we will not have him loose on the streets of Cleveland untreated. If he will take the salvarsan on the spot we will let him go home; if he won't he will go in the patrol wagon—there is no other way. Now, that may be hard. It is once in a while, but I believe that is the only way we shall ever eradicate that disease. There are many cases that will take their salvarsan twice, and then they think they are cured. Some of them think they are cured the first time and fail to report for treatment. They may pay no attention to our card or to the social service nurse's visit, but usually they do because they are simply told that they have a contagious disease, which is not permitted in Cleveland to be loose, and that, therefore, they will hear from us. If it is acute there is likely to be a patrol; if it is not acute the sanitary officer goes to their home with a red sign that reads, "Syphilis within," and the patients are shown that card. The health officer told me not long ago that the longest any card has remained on any house in Cleveland was thirty minutes. In that time several people go by, leer at the sign, and begin to edge away. That will bring the most refractory to time. When they promise to be good, the card is taken down. If they comply with that promise, and they usually do, it stays down, but if they fail to appear at the place where they say they are going for treatment, then it is done all over again. Many of the girls are taken at once in patrols to the City Hospital and there retained for about a week, and in that week they get from two to three doses of salvarsan and are fairly non-contagious at the end of that time. Many a man goes to the City Hospital the same way. If it is an acute case and he looks like a fellow who is going to make trouble and doesn't promise to be good to the satisfaction of the patrolman, who is always a sanitary patrolman, then he goes in the wagon to the City Hospital under arrest. Some of them at first went through the perfunctory performance of going down to the court and getting a ten-day sentence and were then ordered to the City Hospital. Even that is not done any more. They are just taken over there, kept a week, given salvarsan, and let out with the understanding that they are to come to this dispensary or that dispensary for treatment and to keep under treatment.

I do not believe that any method short of the strong-arm method will ever accomplish much in syphilis cases. It is the state law that gives Ohio cities the fundamental right to take action. There are certain things which are not covered in the state laws which the cities are supposed to regulate for themselves, but the cities have authority to prescribe detail and additions only. The fundamental state law applies.

**DR. STEWART HAMILTON, Detroit:** In handling venereal disease in Michigan the state board of health have a similar arrangement, and in our hospital we have also a follow-up system similar to that of Lakeside. The state board of health confines their patients to a hospital. The hospital has given over one floor to these cases, and we have fifty patients. Most of our cases are from all over the state. Once a case is discovered to be syphilis, the patient is confined to the hospital for quite a long period—not for one week; no patient gets out in less than three or four weeks, and some stay a good deal longer.

The requirements of the board of health are that they should have five consecutive negative smears. That is really a safeguard. It is hardly true that you can clear anybody up in five. We have had patients show five when they have had to stay in the hospital for some other reason, and they became positive later, but this method insures a little better, I think, than the week's treatment. Patients may stay in their homes in quarantine with a large red quarantine sign. Patients who are confined to their houses and who are under the care of private physicians would be released in one or two days after showing a negative smear, but they have the privilege of going to the hospital and being cared for by the state, or of staying in their own homes and paying for their own care; they usually come to the hospital, but some of them are "slippers" and we do occasionally have a little trouble. Recently we had an incident where a patient choked another one and had to be arrested; she thought that she would be released on paying a fine and get out, but it was found out and the health board picked her up. A health officer said that in picking women up and examining them, it was found that about 50 percent of the first hundred were infected; then, as the thing went on, out of the next hundred picked up, about 25 percent were found; and in the last group only 4 percent were found to be infected. In Detroit we are picking up the men; we are doing it very quietly, but it is being noised around and it is keeping them off the streets at night and doing a great deal of good in that way.

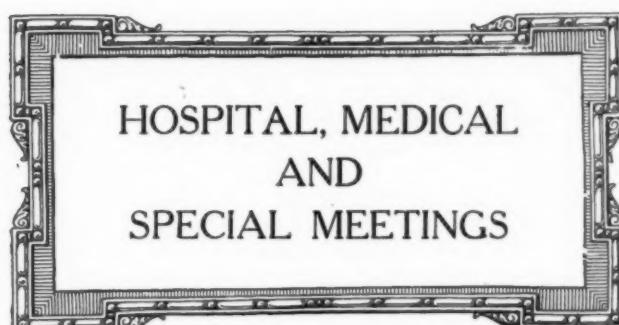
**A MEMBER:** I would like to ask Dr. Warner if these patients who are followed up so vigorously come voluntarily the first time to your clinic?

**DR. WARNER:** Most of them, yes. Some have been in the City Hospital because they have been in trouble, been arrested for vagrancy or for street walking and have just been picked up, as you say, examined, and found to have syphilis; they go to the hospital for the regulation period, which isn't fixed at one week. That's a minimum, but they are trying to crowd it down to one week, though that isn't long enough. After that they are sent down to us, and I presume they are becoming quite a considerable portion of our patients, though at first they all came to us voluntarily.

**A MEMBER:** Do you find these vigorous methods deter people coming voluntarily?

**DR. WARNER:** Our clinic has doubled every year since it began.

**DR. J. G. WILSON, Chairman:** Almost every speaker here has approached the subject through the terror that is going to be impressed upon the prospective patient by the legal side of his case; that is, he is terrorized into coming into the clinic. I believe in that. I think that every community should have this power, but I don't think that it should ever be exerted until the very last thing. All of us who have had practical experience with the handling of these clinics know that the class of patients whom it is most important to treat, from a public health standpoint, must be brought in through the power of the law. After they are in as patients, they are all patients alike. They are all sick to be treated as such, but it seems to me that the hospital should extend to these unfortunate individuals every possibility of being treated for a disease which is considered and is loathsome, without its being known to anybody except the one being treated and the one giving the treatment. That is, these patients should be safeguarded from coming in contact with others, and, if possible, clinics should be held at such times of the day that patients can reach the point the easiest way and with the least possible amount of publicity.



#### CONFERENCES ON HOSPITAL STANDARDIZATION

##### Four Recent Meetings Attract Large Attendance—Interest and Enthusiasm Displayed—Concentration on Three Problems of Hospital Administration

The conferences on hospital standardization being held under the auspices of the American College of Surgeons are a program of cooperation with hospital superintendents and the medical profession; they also reach the public through commercial clubs and public meetings, as well as through those directly concerned with hospitals. The reports which are coming in about the work indicate an enthusiasm which means accomplishment.

During the last part of February and early in March conferences were held in St. Louis, Memphis, New Orleans, and Fort Worth. At the St. Louis meeting, held on February 19, more than two hundred hospital people and physicians and surgeons came from eastern Missouri and southern Illinois. Dr. Harvey J. Mudd presided.

The conferences at Memphis covered Tennessee and Arkansas. The meetings were held in the assembly hall of the Chamber of Commerce and were presided over by Dr. John M. Maury, chairman of the Committee on Standards.

The New Orleans meeting was one of the most notable hospital gatherings ever held. Dr. Frederick W. Parham, chairman of the Committee on Standards for Louisiana, presided. About six hundred of the most prominent people in Louisiana were in attendance, including the Archbishop of New Orleans, who made a short and enthusiastic talk about the interest of the Catholic Church in better hospitals. Dr. Frederick L. Hoffman, vice-president of the Prudential Life Insurance Company, made a forceful talk upon the value of hospital data to the profession.

At the Fort Worth meeting there were visitors from as far away as Kansas City and Sedalia, Missouri, Arizona, and New Mexico, and many from remote parts of Texas, all deeply concerned about hospital problems.

The speakers at all the meetings, representing the American College of Surgeons, were Dr. John G. Bowman, director of the college; Dr. John A. Hornsby, formerly editor of THE MODERN HOSPITAL and just discharged from the United States Army, and Charles B. Moulinier, S. J., president of the Catholic Hospital Association. Local men and women took part in all the programs, including the Fellows of the American College of Surgeons, hospital superintendents, trustees, members of associations of commerce, and public officials.

At all the meetings real enthusiasm prevailed. There seemed to be no question in the mind of anybody as to whether improvements in hospital conditions were desirable and attainable; the only questions related to details. The college clearly emphasized its aim to concentrate on three problems of hospital administration: (1) case records; (2) good laboratory facilities; and (3) organization of medical men with a view to fixing responsibility in

the right care of patients. If these three factors in good hospital service are attained, the college states, all other factors of good hospital service will naturally follow.

The success of these meetings is to be followed with other meetings throughout this country and Canada.

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#### AN INTERNATIONAL CONFERENCE ON REHABILITATION OF THE DISABLED

##### A Conference Covering All Phases of Vocational Re-Education and Employment of the Disabled

A conference on rehabilitation of the disabled was held in New York March 18 to 22 under the auspices of the Red Cross Institute for Disabled Men and the Red Cross Institute for the Blind. This issue of THE MODERN HOSPITAL goes to press too early to permit us to give a report of the conference, but, from advance announcements, we are able to say that it was undoubtedly a most important meeting. Some of the best-known men in the field of rehabilitation both at home and abroad were delegates. The French delegation included Dr. Maurice Bourillon, president of the Permanent Inter-allied Committee on War Cripples and director of the French National Institute for Crippled Soldiers in Paris; Edmond Dronsart, director of the School of Re-education for Maimed Soldiers, at Montpellier, France, and Lieutenant Henri Gourdon. The Belgian delegate was L. Alleman, education director of the Belgian Military Institute for War Cripes at Port Villez. Major Robert Mitchell, director of technical training for the British Ministry of Pensions, headed the British delegates, and was accompanied by Major Francis Meynell, of the Ministry of Labor; Captain Sharpe of the Shepherd's Bush Military Orthopedic Hospital, London, and Mrs. Ethel Wood, secretary of the London Local War Pensions Committee. From Canada came a full delegation led by Sir James Lougheed, Minister of the Department of Soldiers' Civil Re-establishment, and including F. Gerald Robinson, Deputy Minister, and W. E. Segsworth, Director of Vocational Training.

The office of the Surgeon-General of the Army was represented by Colonel Frank Billings and members of the reconstruction staff, and Colonel E. G. Brackett and members of the orthopedic staff.

The Federal Board for Vocational Education was represented by Dr. C. A. Prosser, Mr. James P. Munroe, Mr. Arthur E. Holder, and a number of members of the central office and district office staff.

The Bureau of War Risk Insurance was represented by Colonel E. Banks, chief medical advisor; Captain H. C. Houlihan, chief of compensation and claims, and members of their staffs.

The American Red Cross was represented by Colonel C. H. Connor, assistant director-general of military relief, and also by Curtis E. Lakeman, director of after-care, Department of Civilian Relief, and other national and divisional officials.

The program included the National Programs of Rehabilitation of France, Belgium, Italy, Great Britain, Canada, Australia, New Zealand and India; the American Program of Vocational Rehabilitation, Physical Reconstruction, and Functional Restoration; Bedside and Ward Occupations; Artificial Limbs and Other Prosthetic Appliances; Industrial Surveys of Employment Opportunities for the Handicapped; Methods of Training; and Relation of Pension, Compensation, or other Allowances to Rehabilitation.

Next month we hope to be able to give fuller information on the subject of this most important meeting.

## DEPARTMENT OF DIETETICS

Conducted by LULU GRAVES

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Home Economics Building, Cornell University, Ithaca, N. Y.

### ONCE MORE—THE BANANA

#### Its Value As a Food—Distinguishing Characteristics of Ripe Banana—Various Recipes for Its Use

Mention has been made more than once in these columns of the value of the banana as a food.

Though canned fruits are desirable and we would in no sense speak disparagingly of them, either of the home or commercially canned products, yet at this season of the year we begin to anticipate the early fresh fruits. The best season for orange and grapefruit has passed, apples at this time are not usually so appetizing as they are in



Fig. 1. The border of banana gives a most appetizing appearance to the molded cereal.

the autumn and winter, but bananas are just as acceptable now as they are at any part of the year.

A thoroughly ripened banana has a characteristic flavor and odor. The starch has been changed to a more easily digested form, so that the banana when ripe has neither the same flavor or composition as it has when green. Brown spots on the skin indicate the stage of ripeness. If the skin is unbroken and decay has not begun, a banana with a brown skin is preferable, from the standpoint of a food material, to the yellow or greenish yellow one which the majority of people buy. Dark spots on the pulp may be due to bruises, or they may mean decay. If there are no signs of decomposition, the dark spots are not objectionable.

If the unripe banana is baked, it is as wholesome as the thoroughly ripened one eaten raw. Frequent mention is made of the difficulty in digesting bananas. In the ma-

jority of instances, if the fruit is thoroughly ripe or if it is cooked, there will be no difficulty in digestion. Often the difficulty is simply due to lack of thorough mastication. The fruit is soft and has a tendency to slip down the throat easily, and for that reason it is apt not to be well masticated.

The many ways in which a banana may be served makes it adaptable for any or all of the three meals. As a fruit it may be served alone or in combination with other fruits in the form of a salad or dessert; when cooked, it may be served in the form of a vegetable; as a part of the breakfast menu, it may be served simply with salt, with cream and sugar, with cereal or with fruit juice.

The following recipes are but a suggestion of the ways in which this variety of serving may be accomplished:

#### BANANA WITH CEREAL

1 cup hot breakfast cereal	1 cup cold, molded cereal or dry, flaked cereal
1 baked or boiled banana	1 thin-sliced or pulped raw banana
Milk or cream	Cream or milk
Sugar	Sugar
Salt; Or	

When using hot cereal, make a border of it around a deep dish. In the center, or "well," place the hot banana pulp, add a sprinkling of salt, and serve with or without sugar, milk or cream. With dry cereal, cut the raw banana fine or pulp it and place over the top of the cereal. When a molded cereal is used (Fig. 1), make a border of uncooked banana, pulp or minced, and serve as usual.

#### BREAKFAST BANANA WITH FRUIT JUICE

$\frac{1}{2}$ raw banana	4 tablespoons mild fruit juice
Salt	Sugar (or omit)

Cut the banana very fine, sprinkle with salt and sugar, place in a small serving dish, and pour over it the fruit juice. Diluted lemon juice may be substituted for other fruit juice. If served hot, heat together in saucepan till the juice boils.

#### MACAROON BANANA

1 banana, cooked or uncooked	Whipped cream
3 or 4 macaroons	$\frac{1}{2}$ cup milk
White of egg or milk	1 saltspoon salt

Peel and place the banana in a baking dish with one-half cup milk, cover, and cook till tender. Drain, salt, roll in the crushed macaroons and serve with whipped cream (Fig. 2). Or, use an uncooked, very ripe banana, score lightly, dip in milk or white of egg (slightly beaten), roll in the crumbs and serve.

#### BANANA AND APPLE PUDDING

1 banana	2 tablespoons water
1 apple	Pinch salt
1 teaspoon butter	2 rolled crackers

Slice the fruit, mix with the water and half the cracker crumbs, and place in a baking dish. Mix sugar, butter and the rest of the cracker and spread over the mixture as shown in Fig. 3. Bake till done and browned. Serve with milk.

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#### THE IMPORTANCE OF THE FOOD QUESTION

##### Developments of the War Period Have Made It a Subject of Conversation on the Tip of Every Tongue—Profuse Discussion Reveals a Diversity of Opinion

"Since the beginning of the war" subjects pertaining to food values, nutritive requirements, and all branches and ramifications of dietaries have been discussed from numerous and widely differing standpoints. We believe it could be said, without fear of contradiction, that everyone who eats and is capable of conversing on any subject, has discussed food from some standpoint—from the standpoint of price, if from no other—many times during this period. All of which means that a number of people have a more intelligent understanding of dietetics than

ever before. The subjects of dietetics and dietotherapy have received valuable contributions from food analysts and nutrition experts, which have often been of a plain, practical nature as well as of a scientific. Sometimes we who are of the "common people" become confused at the diversity of opinion of these authorities, but it is always worth while to hear both sides of a discussion.

When such eminent authorities as Osborne, Mendel, and McCollum do not always agree we are not surprised to find others who do not agree with them. The following are extracts from an article by Dr. Hugh Payne Greeley of Madison, Wisconsin, in which he voices an opinion differing greatly from that of Professor Osborne. The article was published in the December 19, 1918, issue of the *Boston Medical and Surgical Journal*.

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#### HABIT VERSUS INSTINCT IN EATING\*

**Diet Must Be Supervised and Regulated by Will Power and Self-Control—Pure Races Under Natural Conditions May Depend on Instinct, But Artificialities of Civilization Make Guidance in the Choice of Aliment a Necessity**

By HUGH PAYNE GREELEY, M.D., Madison, Wis.

The fact that the recent article by Professor Osborne published in the *Atlantic Monthly* for September, entitled "What and How Much Should We Eat?" can pass unchallenged by the practicing physicians of the country indicates to me the great necessity for studying the practical application of the science of nutrition as it has been developed in our great nutrition laboratories.

Having for many years been a student of metabolism in its practical bearing on the treatment of disease, I read the above-mentioned article with great interest. Such an eminent authority as Dr. Osborne I would not wish to dispute, but I feel that a fuller discussion of certain statements would be helpful.

Professor Osborne makes this statement: "It has been generally held that overeating, except within narrow bounds, is impossible, for the subject will either grow fat, which, of course, has its limits, or will feel badly and cease to eat in excess until a normal condition is established"; and later in the article, "Can a man overeat habitually without either growing fat or dyspeptic?" and again, "If surplus food above that needed for the daily tasks of life can be disposed of by increased rate of metabolism, can such a stimulation of metabolism be frequently endured without sensations of discomfort?"

In the practice of medicine, the fat man who from instinct ceases to eat until a normal condition is established does not exist. His instinct must be aided by strong will-power and great self-control, and the establishment of a normal condition seldom, if ever, takes place from a reconstruction of diet alone. Another class of people certainly can habitually overeat without getting fat or feeling badly, particularly without getting indigestion. It is common knowledge that some people can not get fat, and yet they are without organic cause for leanness. It seems to be a matter of temperament or metabolic rate. It is also common knowledge that these individuals can constantly overeat without sensations of discomfort. Constant overeating may produce one of three things—obesity, indigestion, or metabolic disaster, such as diabetes. Is it not probable that stimulation of the metabolic rate for years might break down metabolic processes in the same way as running a motor with a wide-open throttle

will shorten its life through premature exhaustion? Our experience would certainly corroborate this belief and explain many cases of diabetes.

In another place Professor Osborne says, "Waste of food from overeating is doubtless small and quite likely fully compensated for, because a large portion of the 'good feeders' are among the most efficient in every community." The efficiency of these individuals shortens their lives in direct ratio to the number of pounds overweight they are. Physically, they are many of them effete. Mentally, many of them, by temperament and habit, show a capacity only second to that of their stomachs, while many more show a mental capacity like that of the Fat Boy in Dickens. It is likewise a common experience for men to reduce their weight and limit their rations to increase their efficiency in every way. Even the "good feeders" who are not overweight experience this.

A millionaire could not possibly eat as much in a week as a coal heaver unless he engaged in exercise more severe than would be agreeable. If you tried a stuffing experiment, no doubt this would be true. But in real life the millionaire often does eat as much or more, and it is easy for him to do it because of his choice of food. Fat in the form of butter, cream, and rich meats, and sugar in rich desserts and cake, will allow the millionaire to "win at a walk" without eating anywhere near the same bulk of food.

The statement that "it is not at all improbable that many delicate people of sedentary habits who eat but little

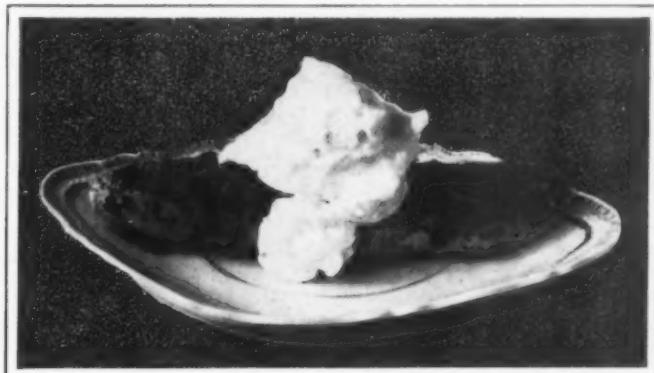


Fig. 2. Macaroon banana with whipped cream.

suffer chiefly from a deficient supply of vitamines" is one which the practical clinician would feel inclined to dispute. As the main deficiencies in diet result from too little variety in the food and as the chief interest of many of these delicate people is to obtain variety and tempt their appetites with all sorts of delicacies in and out of season, it seems probable that their physical vigor suffers more because they do not use what little they have. In other words, their temperamental habits are more at fault

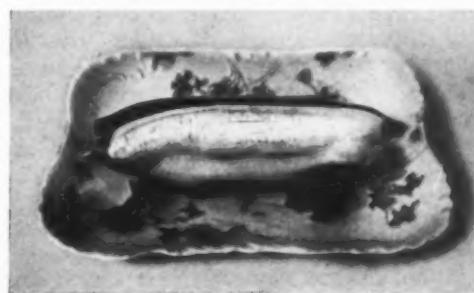


Fig. 3. Banana and apple pudding served in baking dish.

\*From the *Boston Medical and Surgical Journal*, December 19, 1918.

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than absence of vitamines. The value of exercise lies in the exercise itself as much as in anything else. Strength and physical vigor come from exercise and not from food, except indirectly. The indolent and well-fed have often less physical vigor than any other class. It is only by using one's strength that one can increase his strength, and in this light it may be independent of food. If it is true that few people overeat, as Dr. Osborne supposes, it is certainly true that fewer people undereat, except from poverty or lack of food. . . .

When Professor Osborne says that dietary habits which satisfy these promptings of instinct are among the most difficult to change, whereas those that do not satisfy instinct are easily changed, he shows a better acquaintance with the dietary habits of the albino rat than with that of his fellow men. Dietary habits are habits, and I have yet to see any dietary habits easy to break, or any other habit that has existed in an individual or a race for a generation or a century. For nearly two years I worked in Newfoundland among a people who suffered from deficiency diseases, and in all that time they did not learn to eat more than one new food.

The changes that have gradually taken place in our dietary over the last one hundred fifty years are extraordinary. Professor Osborne refers to the lack of vitamines in some of our highly milled flours and warns against them. Our American dietary tastes are more and more running toward these refined foods. Think of the prepared breakfast foods of today that did not exist a generation ago. Think of the changes that have come over our national dietary in one hundred fifty years. For example, sugar consumption has increased during that time from one-fourth pound per year, perhaps, to one-fourth pound per day. Patent white flour in 1914 had almost completely replaced the partly bolted flours of two generations ago.

When we speak of instinct as a guide to a national dietary, we should consider the nation and the food supply. The Chinese have lived for thousands of years upon a natural dietary. We have lived for hundreds of years upon an ever-changing one and one which is becoming increasingly an artificial one. It is true that the West Indian negroes choose a diet for themselves that is nearly ideal. In the West Indies rickets is almost unknown among the negroes. Transplant these same negroes to New York City, and ninety-eight out of one hundred have rickets. Instinct does not help them in their artificial environment. But a large part of our population are transplanted. The working people, from necessity, choose what they can afford to buy. The Italians choose a very low protein diet and are physically efficient. The bankers and millionaires choose a high protein diet and are physically effete. The millionaire has not nearly so safe an instinct as the pig. He has meat or eggs three times a day and fat in excessive quantities. Italian families here get meat once a week, eggs never, cheese and milk only in small quantities, and they eat their bread without butter. It is pretty safe to say that the laborer does not overeat, but the traveling salesman always does.

National dietary studies, unfortunately, do not extend over hundreds and thousands of years, as they should to be of real value to the scientist. The effect of high protein diets on one generation may be small, but on one hundred generations very great. The relationship between degenerative diseases—vascular sclerosis, nephritis, diabetes—and diet is unknown. I am told that high blood pressure is unknown in Korea. We know that degenerative diseases are increasing in this country and that they always increase as a people become physically indolent

and epicurean. The Chinese coolie, than whom no being performs more physical work, is a "seed-eating oriental." Why do not the English thrive in India? Because they take their insular habits of eating with them and do not modify their dietary habits to conform with the climate and environment. . . . Climate and temperament modify the diet of races and individuals. In our country we have extremes of both. . . . Must we not teach the new American his particular dietary needs, both as to what and how much to eat?

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### NEWS NOTES OF DIETITIANS

Elizabeth W. Fee has resigned her position as superintendent of the New York School Lunch Committee and has taken charge of the Institutional Course at Pratt Institute.

Miss Emma Childs, who until recently has been dietitian in the nurses' home at John Hopkins Hospital, is now purveyor at Goucher College, Baltimore, Md.

Miss Claribel McCrea has resigned her position at Allentown Hospital, Allentown, Pa., to accept a similar position at the Philadelphia General Hospital. Miss McCrea is succeeded at Allentown by Miss Bentley.

Mrs. Beth Titus has resigned her position as dietitian at St. Barnabas Hospital, Minneapolis, Minn., to be succeeded by Miss Martha Kimball, University of Minnesota, 1917.

Miss Vera Layne has accepted a position as dietitian at the Oil City General Hospital, Oil City, Pa. Miss Layne just completed a six months' course of training as student dietitian at Lakeside Hospital.

Miss Aline Wolff has gone to Franklin Hospital, Franklin, Pa., to develop a dietary department. Miss Wolff is a graduate of the University of Illinois and had student dietitian training with Miss Geraghty of New Haven Hospital, New Haven, Conn.

Miss Edith Lincoln, who rendered valuable service in the base hospital at Fort Riley, Kas., has returned to civil life.

The New York Association of Dietitians held their annual meeting in February in the Nurses' Training School Hall, New York Post-Graduate Hospital, at which the retiring officers gave their reports. The membership for the year showed an increase from fifty-two to seventy, including an honor roll of seventeen, eleven of whom have seen foreign service.

Last year Miss Isabel Lord, Pratt Institute, and Miss Emma Gunther, Administration Department, Teachers College, became honorary members. This year Miss Adelaide Nutting, Nursing and Health Department, Teachers College, and Mrs. Mary S. Rose, Nutrition Department, Teachers College, were also elected.

Among many items discussed during the year were the following: (1) courses for pupil dietitians; (2) courses in dietetics for nurses; (3) canteen work; (4) food problems in Russia; (5) new text-books; and (6) new ideas in institutional equipment.

The following officers for the coming year were elected: President, Miss Eleanor Wells, assistant in Household Administration Dept., Teachers College; first vice-president, Miss Stella Barker, dietitian, New York Hospital; second vice-president, Mrs. Shafer, manager, National Bank of Commerce Restaurant; corresponding secretary, Miss Charlotte Addison, director, Nutrition and Clinical Dietetics, New York Post-Graduate Hospital; and recording secretary, Miss Alice Penrose, director domestic science, Central Branch Y. W. C. A.

## DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.  
*Director of the Boston Dispensary.*

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

### WHAT THE VENEREAL DISEASE CAMPAIGN HAS DONE

**Vast Program of Education Carried On During the War Has Created a Country-Wide Demand for Diagnostic and Treatment Facilities—Are the Hospitals Ready to Meet This Need?**

BY ALEC N. THOMPSON, Major United States Public Health Service, Washington, D. C.

The declaration of war on April 5, 1917, placed the United States face to face with a potential danger, a danger to the health and welfare of the nation, a danger so large and so real that there was no time for theorizing. The control of venereal disease presented a problem, a problem that was practically unmeasured. A relatively unknown condition had to be met and met squarely.

In 1917 there were scattered throughout the United States a few isolated clinics competent and willing to treat gonorrhea and syphilis. In addition to the dispensaries actually in operation, there were a few—relatively a very few—hospitals that had bed facilities for the care of communicable cases of venereal disease and a few additional hospitals that were capable of caring for some of the disabling sequelae of gonorrhea and syphilis. To the few people throughout the country that had been interested in improving and developing facilities for the prevention and treatment of these diseases, the opportunity loomed large, and, after conferences with officers of the government, a program was outlined and a definite policy declared.

A great many organizations have cooperated in carrying out this program, and the active participation of all the agencies in carrying on the varied activities entering into the control of venereal disease has made a positive reduction of at least 60 percent in the annual venereal rate of the United States Army, excluding cases contracted before enlistment. Under the selective service act the President of the United States was authorized by Congress to protect the military forces from the evils resulting from the use of alcohol, and the Secretary of War was empowered and directed to regulate zones surrounding military places in order to protect soldiers from prostitution. The Commission on Training Camp Activities was created to suppress vice and counteract harmful influences by developing a constructive program of entertainment, education, recreation, athletic and social activities, etc., both within and without the training stations and cantonments.

Protective and constructive work applied to both the army and navy, for while the commissions were in reality

two, one army and one navy, Raymond B. Fosdick was chairman of both, and the general plan and method was basically the same, a fact which helped to secure uniformity and standardization. The program for combating venereal disease emanated from the Surgeons-General of the Army and Navy, and the Commission on Training Camp Activities had constantly the support, suggestion, and direction of the Secretary of War and the Secretary of the Navy. The medical departments of both branches of the service organized administrative sections for the purpose of directing the broad details and of conducting the educational work among the men, as well as the organizing of diagnostic and treatment facilities to care for the infected individual.

From the first day of preparation, it was realized that treatment facilities were needed in the civilian communities if the infected individuals, male and female, were to be cared for in any degree. The Public Health Service, cooperating with the Red Cross, organized clinics in the various states which at the beginning of the war were unable to care in any degree for the venereal disease carriers within their borders. Today the Public Health Service has a special division for the purpose of more intensively carrying out this work in coordination and cooperation with the various state health authorities and the War and Navy Departments under the Kahn-Chamberlain bill. This is a new work that will carry on all the activities started as a war measure, and the hospitals and dispensaries throughout the country must be ready to meet the demand for treatment that will be the inevitable result of extensive public health education and publicity upon the subject of gonorrhea and syphilis.

The program for combating venereal disease was designed to attack from every possible angle and prevent in so far as is humanly possible the destructive effect of gonorrhea and syphilis through military and human achievement. In an effort to control the temptation offered to the soldier by the prostitute and the illicit provider of liquor, the Commission on Training Camp Activities has maintained its law-enforcement division from the very beginning of the war. This organization is at present composed of 95 officers, 20 non-commissioned officers and 75 privates scattered throughout the country, doing a very able and constructive piece of work. After war was declared, considerably over a hundred red-light districts were closed throughout the country. In addition to this, a large number of houses of prostitution not in segregated districts were closed, the work being done primarily by stimulating the police authorities of a community and the community itself to an understanding of the seriousness of the problem. Thus the temptation feature has been attacked in a wholesale manner and, as a follow-up, police women, protective patrol workers, and others have been exerting a constant vigilance upon the streets of the cities throughout the country. In one city of over half a million population, in a period of six months, over a thousand girls have been picked up by Federal workers, have received advice and instruction, have been urged to submit to a physical examination, and have been placed in the hands of various social agencies for continued protective work largely through education. Of this group of a thousand girls, only about 2 percent were court cases; about one-half have had a voluntary physical examination, and of this group 50 percent have been found infected. The seriousness of the problem is realized only when one considers that the majority of these girls were under eighteen and that they were almost entirely not the class commonly regarded as prostitutes.

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The mere removing of temptation in no way solves the problem, and the program was framed with the idea of providing facilities for red-blooded recreation to take the place of the white-light type of recreation which had been removed. The work of the Commission on Training Camp Activities along this line, through its cooperative organizations in the camps and military zones, is well known. Recreational facilities have been of positive benefit in taking up the slack time of the men, maintaining their interest, and accomplishing a definite inhibitory action as far as exposure to venereal disease is concerned. The entertainment and social activities very clearly parallel recreational work by reducing the sum total of exposure to gonorrhea and syphilis. Few people have considered this work as part of a campaign for combating venereal disease, although in the minds of those who planned the program it was a definite and distinctly constructive part of the work. The educational program has been conducted very thoroughly in the camps throughout the United States, and it is safe to assume that almost the entire personnel of the United States forces have had impressed upon them the seriousness of gonorrhea and syphilis; this new consciousness will definitely create a demand for treatment facilities throughout the country.

That there was a need for treatment prior to our entry into the war is very evident, for statistics show that over five-sixths of all the cases reported in the army were contracted prior to enlistment. In one camp, the average period of time elapsing between the onset of symptoms and the examination at the camp was six months, and it is the consensus that almost without exception these men had received inadequate treatment; the reason would seem to be lack of facilities. The problem is placed squarely before the medical profession both in and out of the hospital. The demand at present exists and in the future will become insistent that the medical profession and the hospital organizations equip themselves adequately to handle the existing condition. In one group of 112,000 men, 7,600 were accepted with venereal disease on the first draft. In a group of five camps, over a period of thirty-four weeks, the annual venereal rate, based on these thirty-four weeks, was 347 per thousand per annum, but when separated into before and after enlistment the figures show that 336 per thousand per annum were contracted before as against 11 contracted after enlistment. It is not possible at the present time to interpret correctly the figures for the army in the United States, as there is too large an element of error until complete tabulations are received from all camps. The figures given, however, are indicative of the general situation, as they are based on representative camps.

It has been claimed by some that the reason for the low rate in the army is largely "prophylaxis" so-called, or "early treatment," as it is called in the army today. It is evident to all that the primary consideration of the medical department of the army is to keep the largest number of men fit to fight, and it is recognized that, no matter how effective or efficient any campaign might be for combating venereal disease, it could not be expected that no man would be exposed to infection. It must be realized by everyone that at the present time sexual promiscuity cannot be eliminated in its entirety; the army met this fact by a definite program for early treatment. The term "prophylaxis" cannot be applied in its strict meaning to the procedure of applying medical preparations after sexual intercourse has occurred, and it has been explained to the men from the very beginning that early treatment was available for those who were fools enough to expose themselves to the dangers of contract-

ing disease after they had been educated and provided with opportunities for recreation. The prophylactic packet was not recognized by the army as either efficient or desirable. In its stead, early treatment stations were maintained in regimental infirmaries, and a number of stations were established in the largest cities to which troops go or through which troops pass. The stations in the infirmaries were under the supervision of the medical officers of the various posts and camps, while stations in the communities were under the supervision and, in the majority of cases, under the direct control of the Surgeon-General's office. Statistics are not available as to the sum total of treatments given. The facilities were not used to the extent anticipated. In other words, the promiscuity rate is very much lower than was expected, and this rate may to a considerable degree be taken as the indication of the effectiveness of the program of protection, instruction, and recreation.

It is the firm belief of those who have been in closest contact with the work that there has been an actual and a large reduction in the number of exposures. As far as records indicate, in those camps where the strongest educational program is conducted, the best recreational facilities provided, and the most effective protective work maintained, the early treatment rate has been remarkably low. It has been the experience of the army that the rate of venereal disease contracted after enlistment has maintained a general average, and, as said before, a reduction of about 60 percent of the pre-war rate, and it is evident that "early treatment," so-called, has not been the entirely responsible factor. As the early treatment rate drops, the venereal disease rate remains the same, and there seems to be but one conclusion to draw, namely, that as the prophylaxis methods in general—that is, vice suppression, education, recreation, etc.—increase, the exposure rate decreases.

If these methods are good for the army, they are bound to be good in civil life and, beyond any question of doubt, the ground gained in venereal disease control as a war measure will not be lost as the country returns to a peace basis. The treatment facilities available within the army must be made available for the civil population. To this end, every state health department, in cooperation with the Public Health Service, as mentioned above, is organizing a division for combating venereal disease, and, in general, the plan provides for the establishment of free diagnostic facilities, the establishment of free treatment facilities, the reporting of gonorrhea, syphilis, and chancroid, the elimination of quacks and charlatans, the prevention of treatment by drug store counter prescribing, and the examination and treatment of carriers, both male and female, who may be classed as incorrigible. This program would logically include the examination and treatment of prisoners and their detention beyond their ordinary terms of incarceration until they are no longer a menace to the community. Into this field the hospitals, dispensaries, and the medical profession at large must enter, and enter wholeheartedly. The medical profession and the hospitals must be ready and willing to provide earlier and more efficient diagnosis, more prompt and effective treatment, and adequate follow-up, in order to keep pace with the coming public enlightenment. No case of syphilis need wait for the secondary symptoms to develop, and any clinic or physician failing to make a diagnosis during the primary stage of syphilis must be considered almost criminally negligent.

It was obviously impossible to conduct the protective work necessary entirely through the enforcement of law, because no law is efficiently enforced unless there is com-

munity sentiment back of the officials. The educational work done among the civilian communities by the social hygiene division of the Commission on Training Camp Activities has been extensive and was conducted by means of letters, pamphlets, lectures, etc. A very large number of circular letters have been sent out, and, in a period of ten months, resulted in over thirty thousand actual correspondents throughout the United States. In other words, while many more circulars, form letters, pamphlets, and the like, were distributed, thirty thousand individual correspondents showed their keen interest in the campaign for clean camps, clean communities, and clean fighters. A goodly share of these correspondents were representatives of societies, civic organizations, fraternal bodies, etc., and thus, by subdivision of effort, the material reached a very large portion of the community. In one instance, for example, the enclosures sent with a letter to an old correspondent brought forth a request for a sufficient supply of material to reach the twelve hundred friends composing the manufacturers' association of which he was a secretary. In this general campaign of publicity, the total number of communities reached during the first year of the war was in excess of seven hundred and fifty. An additional audience that it is impossible to measure accurately has been provided with material bearing upon the subject of venereal disease through numerous publicity schemes, the most important of which is probably the house organ campaign; this consisted of various types of material, such as stories, etc., for the newspapers, magazines, etc., published by the larger industries. One advertising expert who has been interested in the work and has watched it very carefully figures that the house organ as a vehicle has placed the message before seven million persons.

Another large number of men and women have been instructed through the campaign carried out in cooperation with the employers of the country. Upward of four hundred firms, ranging in size from the larger national organizations to the small industrial plants which employ only one hundred or so men, have introduced a ten-week educational campaign reaching three hundred thousand male employees. In addition to this, some of the largest national industrial organizations reprinted the government material and carried on the work, thus reaching probably an equal number of which the central office has no positive knowledge.

Similar work is done for the women, and, in addition, lectures were conducted throughout the country in the form of noon-hour talks, meetings of women's clubs, and the like. This work has reached over five hundred and fifty thousand women, divided up into three thousand four hundred groups, and scattered through two hundred and sixty communities in almost every state of the Union.

In illustration of this work, it can be said that, in the state of Massachusetts, where only seventy-five firms bought educational material to place before their employees, the number reached a total of about twenty-five thousand. In addition to this, a positive impression has been made upon the general community through other methods of publicity, such as the War Department film, "Fit to Fight," which, again using the state of Massachusetts as an example, was shown to over seventy thousand men.

All types of communities, both large and small, are being heard from, directly or indirectly, and the correspondents state with remarkable unanimity that no proper facilities exist to their knowledge for the treatment of gonorrhea and syphilis. As one writer expresses it, "With the number of cases of venereal disease which we all know

exist in this country, it seems to me useless to argue that additional facilities do not need to be provided for their treatment."

Much work has been done—more will be done—and, to the remark just quoted, might be added the statement that, as existing treatment facilities are advertised, the program must and will result in the action anticipated—a positive demand for adequate treatment.

Through the large amount of publicity given to the subject during the past year and a half, throughout the entire United States, the general public has been permitted an insight into the problem of venereal disease, its ramifications, and its crying need for control. No longer are we working in the dark with our communities. There is today a large number of people who, if they are unfortunate enough to contract venereal disease, will have some appreciation of the need for treatment. There is a large group steadily growing, to which the medical profession, hospital officials, druggists, and others, will be added, that stands ready to advise the victim of the necessity for treatment, and the question naturally arises, "Is your community hospital ready to meet the demand thus created?"

#### Fellowship for Public Health Men

The Harvard Medical School, in cooperation with the Boston Dispensary, offers a fellowship to graduates in medicine who desire to pursue a course of study leading to the certificate of public health in the School for Health Officers, or to the degree of Doctor of Public Health in the Department of Preventive Medicine and Hygiene.

Fellows are required to give about half their time to the treatment and supervision of the sick in clinics or in their homes for the Boston Dispensary, and half their time to study or research at the Harvard Medical School. Appointments may be made for one or two years. The stipend is from \$750 to \$1000 annually, depending on the details of the arrangement made.

Applications stating previous experience, references, etc., should be made to Dr. Milton J. Rosenau, professor of preventive medicine and hygiene, Harvard Medical School, Boston, Mass., or to Michael M. Davis, Jr., director of the Boston Dispensary, 25 Bennet Street, Boston.

#### Public Education in Rural Sanitation

An educational campaign has been in progress for some time among the rural communities of Minnesota by the State Board of Health in the subjects of water supplies, excreta disposal, and sewage disposal, and state-wide publicity has been attained through circulation of bulletins in rural districts. Routine investigations on the milk supplies of municipalities and institutions in various parts of the state constantly afford an opportunity for educational work. Some attention has been given the rural housing problem, and advice concerning the construction of buildings on dairy farms has resulted as a routine practice in connection with the investigation of milk supplies.

The school children of the state of Arkansas are to be organized in the Modern Health Crusade, an organization created by the National Tuberculosis Association for the practice of hygienic living. A national tournament is to be held from February 9 to May 24, running fifteen weeks. The Junior Red Cross and the Arkansas Public Health Association will participate in the campaign, which is designed to be the biggest ever launched in the interest of public health.

## THE MODERN HOSPITAL



Conducted by BARROW B. LYONS  
Superintendent Delaware Hospital, Wilmington, Del.

#### THE RELATION OF THE HOSPITAL TO THE COMPENSATION INSURANCE COMPANIES

##### How the Out-Patient Department of Public Hospitals Can Be Made a Stronger Factor in the Handling of Industrial Accident Cases—A Problem for the Hospital Executive

By THE LIBERTY MUTUAL INSURANCE COMPANY of Boston

Whether the industrial worker is worth one dollar an hour is still a debated question. It is a fact, though, that his status has improved to a wonderful extent in the last decade. Employers have come to realize the value of keeping him in good physical, mental, and moral shape. Every effort is being made to surround him with ideal working and living conditions. The lighting, heating, ventilation and sanitation of the shop and home are subjects of intense study, and constant improvements are being made along these lines. This is not philanthropy. It is based on sound economic grounds—the better the worker, the greater the returns.

There is another side, to this, however—the more the worker produces, the greater the loss when he is idle. Consequently, accidents that mean idle time cost more than ever before.

The Liberty Mutual Insurance Company of Boston, in their recent book entitled "Surgical Service for Employees That Increases Profits for the Employer," makes the following analysis of the cost of accidents:



Fig. 1. The waiting-room of the Boston surgical department of the Liberty Mutual Insurance Co.

#### THE MONEY LOSS TO EMPLOYERS FROM INDUSTRIAL ACCIDENTS IN THE UNITED STATES IN 1917

\$100,000,000—Amount of premiums paid for compensation insurance.

Plus—Lost production during injured employees' absence from work.

Plus—Lost production because of time wasted by employees during confusion at time of accident.

Plus—Lost production because of idle time of employees whose work depends on function of injured employee.

Plus—Lost production during time required to train new employees when injured employees cannot return to work.

Plus—Lost profits because of material wasted in training new employees.

SUM TOTAL—Lost time—lost production—lost profits.

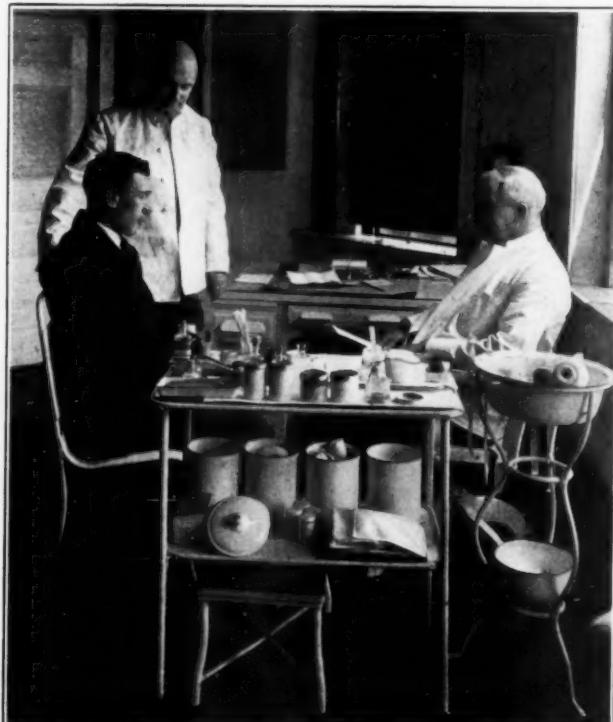


Fig. 2. Close study is given each individual patient in these surgical departments.

This shows very clearly the importance of the speedy handling of accident cases. Many large industrial establishments have solved the question so far as they are concerned by installing hospitals and rest rooms and keeping doctors and nurses in constant attendance. The profits from increased production have paid many times over the cost of doctors and nurses.

The bulk of our accident cases must continue to be handled, however, by our public hospitals. Whether the officials of these hospitals are fully alive to the importance of work to be done along the lines of improving industrial accident service is an open question. In a recent interview a surgeon with a national reputation gave his opinion as follows:

"The welfare of the industrial worker and the treatment of industrial accidents are of great importance to any community. The out-patient departments of our regular hospitals are supposed to look after industrial workers, and they do to a great extent. But there is generally lacking an element of personal interest in the welfare of the individual and any incentive to hasten the recovery. Cases are treated as a regular routine. The surgeon in charge is a young man who is looking forward to the time when he is to be given a position in the house. Most of the work is done by one of the house officers, and the

surgeon sees only the new cases, or occasionally a case which is not doing well, or else one in which the question has been raised as to the advisability of its being sent into the house.

"Cases are not neglected, but cases are not looked after as they might be. The welfare of the wound is looked after, but the welfare of the individual is liable to be neglected. The dressings are applied mostly by medical students, orderlies, and nurses, and no particular study is made of results just so long as the wounds are properly healed. If fingers and hands remain stiff after sepsis, it is considered unfortunate—but no determined effort is made to remedy it. The work in the out-patient department is considered more or less of a drudgery, and the sooner the promotion into the house comes the better, of course, the surgeon in charge likes it.

"Up to the last few years very few of the cases were followed up properly. When the laws of compensation



Fig. 3. All dressings, utensils, and surgical instruments are carefully sterilized after use.

were passed, though, with the consequent added cost to the employer, it became perfectly apparent that a new era had commenced. Records had to be kept of every case, because the complete history of every accident is necessary to the equitable adjustment of compensation. The keeping of these records meant additional expense, so that a charge had to be made to the insurance companies. It soon became apparent that a charge had to be made also for accident treatments, because the employers were no longer willing to make contributions to public hospitals where their workmen were being treated under the compensation act.

"Thus the compensation laws are gradually changing the character of so-called charitable institutions. *Instead of being charitable institutions, public hospitals are selling their services in the open market in direct competition with doctors and private hospitals.* Under these conditions, the question of the value of these services arises. Isn't it perfectly fair for the employer to demand that the best of care be given to his employees? Isn't it perfectly fair that the visits of the injured employee should be timed to suit the convenience of the employer and employee as well as that of the surgeon?

"If these things are done, there is no reason why the out-patient department should not become a very important part of every hospital. The day has gone by, however, for surgical men to give up the greater part of their lives in public hospitals for nothing. If the times demand that many surgeons must give more of their time and all of their skill to industrial cases, then there is no reason why these surgeons should not be just as well paid as skilled surgeons in private practice.

"There is one more point of importance in this connection. Before any man can call himself a surgeon he should qualify. As this matter stands today a student finishes his course and then announces that he is a surgeon. He should be made to prove it, and this can only be done by working a few years in a well-recognized hospital under competent men."

In connection with the opinion of this surgeon it might be well to quote further from the book previously men-

tioned as having been issued by the Liberty Mutual Insurance Company:

"Several years ago, after a careful study of the situation, the Liberty Mutual Insurance Company decided that a specialized medical and hospital service could be arranged that would do away with much of the time lost in the handling of accident cases. With this end in view, the company has established surgical departments of its own in important industrial centers."

These private surgical departments of the Liberty Mutual Insurance Company have been very carefully supervised, and the out-patient work has been planned to save all the time possible for employers and employees. Dr. William A. Brooks of Boston is medical director and senior surgeon, and under his supervision results have been secured that are very gratifying to both the insurance company and the employers insured with them.

One very important feature of this work is the practical elimination of waiting in the out-patient department and the dressing of as many as possible of the minor injuries during the noon-hour. The amount of time that these methods save and the amount of productive time that is probably lost in the treatment of minor accidents in public hospitals where long waits are very common, can be gathered from the following report of the Massachusetts Accident Board from July 1, 1916, to January 30, 1917:

NUMBER OF NON-FATAL CASES—135,257		
No. of Cases	Total Disability in Days	
96,024	.....	1
11,697	.....	1 to 3
19,421	.....	4 to 7
6,885	.....	8 to 10

In the balance of non-fatal cases total disability extended beyond these periods.

It is fair to assume that the greater proportion of the cases involving total disability of from one to ten days required redressing from time to time. If these cases were handled by our public hospitals in the routine way, it is also fair to assume that the employers of the injured workmen lost many hours of productive time. Just what this proportion of loss is, it is impossible for anyone to determine accurately, but to anyone familiar with the workings of the out-patient departments of our public hospitals, there is no question but that it is considerable.

There is another important feature in connection with the operation of the Liberty Mutual private surgical



Fig. 4. Dressing a stiff joint in the orthopedic department.

## THE MODERN HOSPITAL

departments, and that is their orthopedic departments. These departments are especially organized to give service to employees whose skill is affected by the stiffness of some tendon or joint following recovery from accidents. No effort is spared to put the employee back on the job in the best possible shape. This is a service that every employer can appreciate.

The Liberty Mutual Insurance Company makes the following statement about the results secured:

"A summary of the work done by the Liberty Mutual surgical departments in the last five years shows the following results:

1. They have saved hours of valuable time for employers and employees in the treatment of accidents.

2. They have increased the efficiency of the employees of many of its policyholders by putting them into better physical shape than they were before they were injured. This includes valuable advice on right living, working conditions, etc., that an employee follows more quickly if it comes from his surgeons than if it comes from his own foreman or superintendent.

3. They have aided in the speedy adjustment of compensation; nurses and doctors have secured information for the adjusters that could not have been secured so soon after the injury in any other way.

4. They have aided in accident prevention; through the intimacy developed in treating accidents, conditions have been discovered that could be improved in many establishments at a very slight cost. Nurses and doctors have also spread the gospel of "Safety First" among the injured employees.

5. They have reduced the medical cost of handling accidents.

6. They have cemented pleasant relations between the employer and employee by giving immediate and interested attention to injuries. This sometimes is impossible when cases are handled by a private physician or at a public hospital. An employee who meets with an accident is naturally depressed, and, if he does not receive immediate attention, he feels that his employer has neglected to provide properly for his welfare. Valuable employees are often lost for just this reason."

These results seem to justify the effort expended, and the methods this company has used in the handling of industrial accident cases should be carefully considered by every hospital executive.

\* \* \*

#### A Request for Information

A request has been received from Mrs. Samuel Semple, a member of the industrial board of the Department of Labor and Industry of the Commonwealth of Pennsylvania, for information regarding the subject of the physical effect of lifting of weights, especially by women. Mrs. Semple's request reads in part:

"The subject has received much thought and consideration during the past months when women have been entering occupations new to them, but, so far as I can gather, the thing that is needed is actual observation of the effects of such occupations and practical study of the whole subject."

Information regarding this subject or regarding sources of information will be very greatly appreciated by the editor of this department.

\* \* \*

Under the direction of Dr. Loyal A. Shoudy, chief surgeon of the Bethlehem Steel Company, Bethlehem, Pa., two assistant surgeons and sixteen trained nurses cared for 70,000 surgical and medical cases during the last fiscal year of the company. The total number of hospital and dispensary visits was 210,000.

If you intend to do a mean thing wait till tomorrow; if you are to do a noble thing do it now.—Dr. Guthrie.

## LETTERS TO THE EDITOR

### "A Stranger in a Strange Land"

[Numerous letters received at the editorial office assure us that our readers are deeply interested in the series of Little Journeys written by Miss Margaret Robinson, our field editor, who is now doing publicity work for the American Red Cross in Paris. We believe, therefore, that the following letter recently received from her will be of interest.—Ed.]

I finished my survey of this department today and will be back in Paris now for a while to do some writing, after which I will probably make another extended survey over a much wider area before I can get home. I motored about a hundred kilometers today and went to three towns. My first stop was at Janville, a quaint old place with a tenth century church and a hospital in an old château where Joan of Arc stopped for the night on her way to Orleans. The new Franco-American dispensary will be partly in Jeanne's bedroom, and an old stone statue of the maid is on a fountain in the moss-grown garden. At Toury, the little old hospital was founded in 1730 by a tired traveler who found shelter there, and at Auneau there is a wonderful old gray-towered castle on the hill.

The other day, in going from Châteaudun to Cloyes, we passed the castle of Montigny. I turn my nose up now at churches any younger than the thirteenth century.

I find that my dreams of getting home in April are shattered, which means that I am so much further off from seeing you all and God's country again, and getting a real cup of coffee with cow cream in it.

Next week I am going to Bordeaux and later to Marseilles, Toulouse, to Finisterre, to Brittany, and to Nice, where I will get a chance to see Monte Carlo. My French is getting to be almost human, and I have reached the stage where I can find my way about pretty well. At least, I have found a most satisfactory way to get a good lunch. I eat an omelette and *petit pain* at one restaurant, where the coffee is very bad and they have no desserts, and then I go to a near by tea-room, where I can get a delicious chocolate and macaroons to finish up.

Last night we went to the opera and had a loge on the left of the stage nearest the sky. The orchestra is wonderful. Berlioz' Damnation of Faust was on. I never did love the music of it, but we went mostly to see the dignitaries of the Peace Conference, for whom the performance was given, and had the most of our fun between the acts watching the promenade above the grand staircase. We sat right opposite the presidential box and had a good view of the party. I saw gorgeous-gowned and bejeweled ladies and handsome officers of almost every nation under the sun except the Boche. We Americans were all very properly in uniform, of course.

I wish you had time to write more often, as letters are surely a godsend to us exiles in this country.

MARGARET J. ROBINSON,  
2 Rue de Rivoli, Paris, France.

**A Spirit of Cooperation Which We Appreciate**

To the Editor of THE MODERN HOSPITAL:

Referring to the editorial, "A Nurses' Home With Some Commendable New Features," on page 46 of the January issue, the criticism on the location of classrooms and quarters for domestics is a just one, and we would have been glad to have these rooms grouped as suggested, but it did not seem possible with the definite requirement of the large room and the location on the hillside pitching two ways. As a matter of fact, the assembly room is used only for class work, as the airing balconies are used for dancing and gatherings and there is consequently no conflict, as you suggest. We hope in time to change these rooms for purposes more directly connected with the home, as it is intended to keep servants in this building temporarily only.

We appreciate your personal interest and the good work THE MODERN HOSPITAL is doing in the hospital world. More power to you.

WARREN C. HILL,  
Kendall, Taylor & Co., Boston.

[We have asked permission to publish this reply to our criticism of certain plans, because of the very clear and very kindly way in which it brings out the reason for such criticism. In other cases as well as that of our correspondent, the architects of plans commented on have very probably taken into consideration the points criticized and have chosen the particular solution of the problem adopted with due regard to general principles of hospital construction as well as local conditions. We think it advisable, however, to call attention to departures from general principles in order that a method of construction adopted to fit particular conditions may not be mistaken for a formula suitable for universal adoption. It goes without saying that, if a plan is published in THE MODERN HOSPITAL, that fact may be taken as an indication that THE MODERN HOSPITAL regards it as above the average in merit.—ED.]

\* \* \* \*

**Ten-Year Old Children Work Only Eleven Hours**

To the Editor of THE MODERN HOSPITAL:

The Charlotte *Observer*, of Charlotte, North Carolina,—the volunteer and highly enthusiastic champion of the North Carolina cotton manufacturers—rushes to the defense of its clients in a recent issue. Under the caption "Miss Lathrop Corrects Some Figures Bearing on Carolina Industries," the *Observer* correspondent quotes a letter from the chief of the Children's Bureau to Eugene Holt.

Judging by the context, Eugene Holt had made a protest against the report of the Federal Children's Bureau on present child labor conditions and had expressed the feeling that exaggerated and sensational reports from a Federal office regarding the situation in North Carolina might lead the uninitiated public to think that North Carolina cotton mills actually employed children. Of course, it would be unfortunate for this industry to rest under such a cloud. Miss Lathrop, chief of the Children's Bureau, therefore takes down the files containing the investigators' reports and looks them over again to make sure that justice is done. She says it was unfortunate that anyone should have had the impression that the official reports referred only to cotton mills, because the statement of the bureau given to the press plainly indicates that it refers to all industries.

This is not Miss Lathrop's fault or the fault of the public—there is a super-sensitive self-consciousness on the part of the cotton mill industry, which has persisted in

thinking for the past fifteen years that every criticism on child labor in America was directed against that industry. Advocates of child labor reform have never been able to refer to child labor in the glass factories of West Virginia, the coal mines of Pennsylvania, or even the beet fields of Colorado without having the North Carolina cotton manufacturer get hot under the collar and retort that they were attacking his business and that the child labor "uplifters" were financed by New England capital in order to destroy the infant industry in the South.

And so Miss Lathrop goes to the trouble of making it clear that the cotton mill employers are not the only ones in North Carolina that offend against the rights of innocent childhood. She says, "We find that the five-year-old children at work were not in the cotton industry." This ought to silence forever those critics of that gentleman's agreement in North Carolina under which the organization of any official state supervision of industry has been persistently opposed. Why should anyone any longer ask for such supervision? Even without it these custodians of the people's welfare have ruthlessly excluded from their mills all five-year-old children.

Miss Lathrop further says that "Ninety-one children between six and ten were found in five industries including cotton, and that the children of these ages in cotton industries who were working regularly were working eleven hours a day." How have the mighty fallen and the weapons of war perished! Tell it not in Gath lest the daughters of the Philistines rejoice. Ten years ago those of us who have been dubbed by our critics as "child labor agitators" were branded as infamous falsifiers when we ventured to report that children of eight, nine, and ten years were sometimes found at work in cotton mills. We can afford now to rest our case. Here comes the Charlotte *Observer*, defender of the holy cult of cotton manufacturers, to assure us on Government authority that no children of five years are found in the cotton industry and that the children in the cotton mills between six and ten years of age are working only eleven hours a day!

The chief of the Federal Children's Bureau says that the mills visited constituted about one-tenth of the total number in the state and they were a fair sample. We therefore gratuitously contribute to the Charlotte *Observer* and to its constituency whatever comfort they can get out of the Government estimate that not more than 910 children between six and ten years of age are working in the five industries investigated in North Carolina and that those of this number in the cotton mills who were working regularly are on the eleven-hour shift. These are the industries presided over by the men who assured Congress that without a federal law North Carolina would protect her own children. Happily there are other forces in North Carolina at work—forces keenly alive to the necessity of safeguarding the children of that commonwealth, and we may expect them to be heard at the next session of the legislature demanding the enactment of a well-considered program for child conservation.

But since the Charlotte *Observer* has turned state's evidence, let us take occasion to warn the North Carolina friends of the children that they must be cautious and conservative. We agree with Miss Lathrop that "in a time like this, whose difficulties of adjustment are evident," it is especially desirable to put forth no "sensational or exaggerated statements." Let us bear in mind that no children of five years were found at work in the cotton mills and that the children between six and ten years worked only eleven hours a day!

OWEN R. LOVEJOY,  
Secretary of the National Child Labor Committee.

## DEPARTMENT OF NURSING

Conducted by ANNIE W. GOODRICH, Dean Army School of Nursing  
and CAROLYN E. GRAY, R.N.

Please address items of news and inquiries regarding Department of Nursing to CAROLYN E. GRAY, R.N., Principal, City Hospital School of Nursing, Blackwells Island New York.

### PUBLIC HEALTH WORK IN THE SANITARY ZONES\*

**Intensive Nursing Service Helps to Prevent Disease and Increases the Number of Patients Reached—Experience in the Zones Around the Camps Has Lessons for Public Health Work at all Times**

By MARY E. LENT, R.N., Director of Nursing, United States Public Health Service, Washington D. C.

The health of the soldier as well as the civilian has depended very largely during the period of the war upon the activities of the United States Public Health Service in the sanitary zones surrounding the camps throughout the country. In each of these zones, the officer sent by the service has sought to coordinate all existing health activities and to supplement by the employment of other workers—bacteriologists, sanitary inspectors, and nurses—such activities as already existed. It was recognized almost immediately that no amount of preventive work within the training camp itself could insure this well-rounded health protection and that the correction of the dangers lurking outside the camp, such as the mosquito and fly-breeding places, insanitary handling of food-stuffs, the often polluted water and milk supply, the lack of isolation of communicable diseases, etc., was of vital importance in the vast work of delivering direct to the firing line men physically fit.

It may be of interest to note just how and why one of these zones was established. In the spring and summer of 1917, a typhoid epidemic was in full sway in a certain town. The local health authorities were unable to check it, and as the town was adjacent to a big army post, it sent out the "S. O. S." In August, 1917, the first Government health officer arrived, and shortly afterward the American Red Cross had a unit in the field and work started immediately. Officially each of these zones is known as an "Extra Cantonment Zone" and "Red Cross Sanitary Unit." The personnel of this particular zone consisted of one medical officer in charge, one assistant surgeon, three United States Public Health Service nurses, three Red Cross nurses, one sanitary engineer, one chief sanitary inspector, one bacteriologist, one assistant, one milk inspector, three sanitary inspectors, one clerk, and one stenographer. Two Ford cars were donated by Henry Ford through the Red Cross for the use of the nurses and sanitary inspectors, and the city bought one for the use of the doctor.

One of the first things done was to inoculate the people with typhoid serum free of charge; other physicians in the city offered their services and in a short time over

six thousand people were inoculated. Each typhoid fever patient in the city was visited by one of the nurses, and, before a patient could be released from quarantine, a specimen of stool was examined by the bacteriologist to be sure that he was not a typhoid germ-carrier. For over two months, the doctor and the nurses were on the go; working hours were not counted; visits were made night and day. But results began to show; new cases were dwindling—only a few new ones a day, in contrast to ten or twelve a month before—and since October only five cases have been reported; two of them had just come to town and the others had not been inoculated.

In September smallpox broke out. Steps were immediately taken to prevent an epidemic. The order went out that all school children not having a certificate of vaccination must be vaccinated or stay out of school for twenty-five days. Doctors and nurses went to the schools and vaccinated free of charge; the result was that 94 percent of the school children and a large percent of grown people were vaccinated. The same preventive measures are taken when any other contagious disease is reported.

Every child in the schools of the city and county has been examined, and a history of the diseases each has had is kept in the office, together with a record of any defects; notification cards of these are sent to the parents so that the children may be treated by their family physicians. Every home in the county outside of the city has been visited by United States Public Health Service nurses in order to give instruction on the health and care of babies. All sanitary conditions of the zone are supervised.

The organization and workings of this unit are typical of those throughout the country. As a rule, the zone proper comprises five miles about each camp, but in some places where it has been requested by the local authorities, whole counties have been included in the areas thus administered, and many local organizations have contributed to the salaries of the nurses needed.

On account of the tremendous increase in population over normal times, it has been necessary to correlate the work of the public health nurses in these zones and to drop much of the usual bedside care in order to cover the immense amount of instructive work which has to be done. At the beginning of the war there were, in a few instances, visiting nurses who were giving mainly bedside care. In a few other cases, there was a certain amount of school supervision of a very incomplete character. But the bringing together and pooling of resources had not been introduced, nor had the great economic and educational value of the public health nurse been demonstrated by this method in any of the zones. The conviction that this is no time to waste a minute underlies the plans for reorganization recommended in the various zones which have been visited. During a recent tour of inspection in one of the cantonment zones, it was recommended that a combination of various existing agencies, under the direction of the United States Public Health Service, be inaugurated. A brief outline of the general plan submitted contains the following recommendations:

That the city be laid out in small districts, with a nurse assigned to do all the nursing work in each district; that the supervisors of the various existing associations be retained as specialists to train the nurses and in an advisory capacity; that the funds now made available for nurses' salaries by the separate associations be applied for the same number of nurses for work under the new plan; and that the present directing bodies, such as the District Nurse Association, remain in existence as advisory boards.

\*Read before the Twentieth Annual Convention of the American Hospital Association, Atlantic City, N. J., Sept. 24-28, 1918.

This generalization of nursing work has been effected wherever possible as being the most economical use of the nurses' time and efforts. It provides a more intensive nursing service because it doubles the number of patients a nurse can visit, increases by 50 percent the number of reported cases of disease, enables disease to be recognized and treated in its early stages, facilitates the isolation of patients before they are able to infect others, keeps people well by educational work, and protects the civilian population and in that way the soldier—for a great proportion of the epidemics among the soldiers can be traced directly to the community in or near which the camp is situated. Indeed, in one month in four of the zones, while doing the regular routine work, it is a fact that the nurses recorded 574 cases of communicable disease which had not been previously reported. Who can say what the result would have been, both to the men in training in these cantonments and to the civilian population, had there been no nurses to help in the protection? How many hospital cases would there have been to be cared for, and how many nurses needed to nurse back to health, if possible, sickness which was thus checked at its source? For, at this rate, thirty-seven zones would average 5,291 cases discovered by the nurses in one month.

This generalization of nursing activity means less bedside nursing, but the nurses can teach others to do the simple things for which trained service is not required. It reduces the number of special nurses, but special supervision will make up this lack. This war, with its mobilization of soldiers in great centers, with its demand for highest human efficiency delivered promptly at the front, with its requirement for great number of nurses drawn into military service, presented an emergency which had to be met by emergency measures. This plan was put into successful operation in a number of the zones and cities.

Hundreds of American soldiers have died and hundreds of others have been brought down by preventable diseases contracted in the preparation and training of soldiers who were often unable to embark at the appointed time on account of sickness, much of which might have been prevented by proper prevention and organization. How appalling this military, economic, and human loss has been in the past was very clearly shown in statements made by Dr. Louis Livingston Seaman in testimony which he presented recently before the Committee on Military Affairs of the House of Representatives. Dr. Seaman has been in eight different wars in every part of the world for the sole purpose of studying military sanitation and the prevention of disease in armies. He gave, among others, the following statements and figures:

It must never be forgotten that in every great campaign an army faces two enemies—the armed forces of the opposing foe with his various machines for human destruction, who is met at intervals in open battle, and the hidden foe always found lurking in every camp, the grim specter ever present, that gathers its victims while the soldiers slumber in hospitals, in barracks, in bivouac—the far greater and silent foe, disease. Of these enemies, the history of warfare for centuries has proved that in prolonged campaigns the first or open enemy claims 20 percent of the total mortality in the conflict, while the second or silent enemy is responsible for 80 percent. In other words, out of every 100 men who fall in war, 20 die from bullets or wounds, while 80 perish from disease, most of which is preventable. This dreadful and unnecessary sacrifice of life, especially in conflicts between the Anglo-Saxon races, is the most ghastly proposition of modern war. In the five months of the Porto Rican campaign in the late Spanish-American war, 262 men died from disease while only three were killed by bullets. In the mobilization camps during that war, in the United States alone, 26,649 men died of preventable disease with-

out one of them leaving the country or seeing the firing line.

One of the most important pieces of work accomplished in connection with the war has been the establishment of the venereal clinics which have been carried on jointly with the other zone work. Many of the clinics are in cities or towns where such care has never before been available. Also, the social aspect of these diseases is at last receiving the attention of which it has long been in need. Attached to many of the United States Government clinics are social service departments, conducted by socially trained public health nurses whose business it is to ascertain the moral and economic reasons for the infection of each person applying for treatment. The responsibilities of the nurses in these clinics have been of a varied character, the most important being the protection of the military forces, the safeguarding of the community, and the care of the innocent family of the infected person. As the work has developed, the vastness of the problem becomes more and more apparent, and the definite program being worked out by the United States Public Health Service in the newly established department for venereal diseases has become a nation-wide movement.

During the summer months, while the schools have been closed, it has been possible for the public health nurses to help establish and in many zones to carry on, in connection with their routine work, the program launched by the Children's Bureau for the weighing and measuring of babies and the establishing of welfare clinics. The results have been almost beyond belief in the cooperation of thousands of mothers and the opportunities open to the nurse to come into direct contact with the home life, that most important of all factors in the fight against disease.

Surely these figures and facts carry their own convincing arguments for the adoption of such means or protection for the men in cantonments as have been proved effective by the test of experience.

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#### TAKING STOCK\*

##### Dean Herbert E. Mills Tells Where the Vassar Training Camp Students Stand

As the young women of the Training Camp for Nurses marched out of Vassar College chapel after the closing exercises on the evening of September 9, those who watched them could but be moved by enthusiastic anticipation as to what might be expected when hospital replaced campus and service supplemented training. In physique seemingly full of strength and elasticity, in mind trained and informed by weeks of fascinating study, in spirit filled with a sense of obligation, these students revealed in their faces determination, eagerness, and idealism such as few ever behold, which promised things immeasurable. No one could then suspect how quickly they were to be plunged into terrible strife with an unparalleled epidemic, that many would themselves be recipients rather than givers of tender nursing care, and that within a few weeks five dearly beloved ones of the group would have made the supreme sacrifice as a result of unfaltering performance of duty. By a process of gradual approach and progressive experience the young soldiers from the preliminary training of Plattsburg and cantonment were moved into the trenches; but this fall hundreds of inexperienced recruits were placed at once on the hospital firing line. Conditions varied in different hospitals. In some, the relatively small number of influenza patients

\*From *The Thermometer* (published occasionally by graduates of the Vassar Training Camp).

## THE MODERN HOSPITAL

made it possible to save probationers from serious exposure, but in others where law, tradition or public obligation compelled the acceptance of every patient, even though this meant two or three times as many as there were beds so that patients were placed on chairs, on the floor and even on shelves, such isolation was impossible. When absolutely untrained volunteers were giving their services in a catastrophe, it was impossible to exempt those who had had some training and had joined the ranks of nursing. To the credit of the Vassar Camp group it should be added that not only did they not expect exemption, but that in cases where it was offered them it was refused without hesitation. It may be said without exaggeration that never before did probationers begin their training with such appalling and discouraging experiences as did those of this last autumn, among whom were numbered those from the Training Camp.

Another unexpected test of resolution and persistence was the ending of the war. The motive actuating a large number of those who entered the Camp was a desire to do war service. Even after the summer's emphasis upon the need of public health nursing and the opportunities it presented, it was the war need and the possibility of service overseas which bulked large with many. In less than two months this inducement to continue was gone.

How did these two unforeseen influences—influenza in October and peace in November—affect the group? It would not have been strange if they had caused depletion in numbers—and they did have their effect. Not only did five lose their lives because of influenza, but a number of others have had health so seriously affected that temporary or permanent abandonment of plan was necessary; and, in a number of cases, illness or death in the home circle compelled withdrawal. The coming of peace brought the possibility of marriage to a number whose fiancés were in service; and a few felt no interest in nursing apart from its war aspects. The results were, however, varied in different hospitals, from no withdrawals or only one or two in some, to serious inroads on the groups in the others.

From answers to letters sent between Christmas and New Years to every hospital in which even one student from the Training Camp became enrolled the following statement is possible. Four hundred thirty-five entered the Training Camp in June, and the most unexpectedly large number of 418 remained through the summer, nearly all departures being due to illness of the student or her family. . . . Only a very few failed deliberately without good reason to meet the obligations they had assumed.

. . . According to official information, 399 have entered their hospitals, including one or two who are down for January acceptance. Of this number five have died, three have been rejected by their hospitals, and one hundred four have resigned. The causes of resignation have not been obtainable in every case, and in some it has been a combination of family pressure, end of the war, and lack of interest in nursing. . . . There were remaining in nursing work at the end of December in the hospitals which they entered, as nearly as I can ascertain, 287. However, two of those withdrawn have entered other hospitals, making the total 289 who were still on the list of pupil nurses. Further one other who withdrew is the very efficient social director of the training school she entered and another transferred from nursing to training in dietetics in the same hospital. If we add these and those who took up the study of medicine and other health work, there are almost three hundred still in health work, i. e., at the end of December according to my count 298. . . .

Is this percentage of withdrawals large or small compared with that prevalent in hospitals? From what superintendents of nurses have told me or written me, it compares favorably with what occurs in some hospitals and unfavorably with others.

How have those who entered the hospitals acquitted themselves? Almost universally they have lived up to the highest expectations; and to me, more or less in touch with most of the groups through students and directresses of nurses, it has been most gratifying and inspiring to hear of unfaltering effective service. Space allows me to quote only two superintendents of nurses, but they represent two cities hospitals in which conditions were most disheartening. "They accepted the responsibility in a perfectly splendid spirit and have rendered wonderful service. We do not know what we should have done without them at this time." "I was obliged to put them on duty where I would not ordinarily put young nurses. They have taken hold of the work with vigor and enthusiasm and have been a world of help. Today [October 7th] they are doing work that ordinarily I would not exact of pupils until they had been in the school for six months. No greater contribution has ever been made to the nursing service of this hospital than the advent of these women, because never in my experience has there been such a difficult time as at present. There has been no panic among your students and they have worked on with just as much courage as if they had been veterans. No greater help could have been given us than has been furnished by these students."

I wish space allowed me to give in full a letter from one in a hospital in which conditions have been considered in the past very severe. One or two sentences I must quote: "I shall never regret having come into this work, for I love it and I feel as if I were worth while. I wouldn't drop this work for anything. . . . It gives such a sense of responsibility, even of awe, to go into that ward at night and find those patients watching for me and to know that all those helpless men are depending upon me and believing in my ability to help make them well again. . . . I was taken sick and received the best of care. Now I know how it feels to lie there in bed and I can feel for these others who lie there while I am up and getting stronger and fatter every day while they get weaker and thinner." Many others of the relatively few who have had some reason to write or have kindly done so without one, have given similar testimony. . . .

The chief cause of unrest has been the long day, which, as one superintendent said, is devitalizing. One student observed rightly: "It means that much we gained in college is slipping away from us—interest in music, art, literature—for we are too tired when we come off duty for anything but bed." . . . Practically all superintendents of nurses wish the eight-hour day and progress toward it seems certain soon. There is difference of opinion as to the best method of securing it, but I am strongly of the opinion that only state legislation will secure it, except in a few hospitals. The time is ripe for a campaign and unless it is attained soon, it is futile to expect many college women to enter nursing or to urge many who are now in to remain. . . . It is a condition, not a theory, that confronts us. In certain hospitals there must also be some rearrangement of work.

I think that the nurses from the Training Camp have been very patient with hard work even of a menial kind and with the inevitable disagreeable duties connected with nursing; but they have rightly been impatient with the twelve-hour day, with scientific instruction poor in quality and not recognizing their previous attainments, and

with bad organization when existent in training school or in the actual administration of hospital wards. Intelligence, superior to that of those less fortunate in education, and experience in organization and administration, which many of them had had in other fields, have made them quick to detect defects which pupil nurses have previously taken for granted. Here is a potential force for progress and improvement which hospital authorities should gladly welcome.

\* \* \* \*

#### "PEACE HATH HER VICTORIES"

##### Dr. Winslow's Advice to the Students of the Vassar Training Camp

I have thought very often of the graduates of the Training Camp during these past months which have been so full of grave anxiety for all who are dealing in any way with the problems of disease. I have thought of how eager you all were for a part in the great conflict abroad, how tame and dull it seemed to have to go first into civilian hospitals at home, and then how, a few weeks only after the pleasant cozy life at Vassar ended, you found yourselves in those same civilian hospitals hurled into the very thick of the most desperate conflict against disease this continent has ever known. Everyone who can claim the smallest share in you is very proud of the way you met the challenge. You gave your youth and your strength, and some of you gave your lives. You know now that peace hath her victories as well as war.

Since this special crisis passed you have had to meet a test that seems to many of you even more arduous—an exhausting round of uninspiring and, in large part, unimproving labor. We hear that some who fought gallantly through the epidemic are finding the normal conditions of the training school too onerous to be borne.

I would not have you satisfied with the conditions that still obtain in most nurses' training schools today. I hope you will feel a keen indignation, for yourself and for your fellows, against long hours and low standards and slipshod instruction, if such there be. I hope you will fight these evils of your profession vigorously and effectively after you have gone through and conquered in spite of them. Meanwhile do not forget that the leaders of nursing today, Miss Nutting and Miss Wald, Miss Goodrich, Miss Delano, and the rest, survived training schools compared to which those of the present time are paragons of excellence. Today these women and a host of others are working with might and main to bring the training school up to the standards we all of us desire, and during your two years I believe you will see the fruits of their efforts in every hospital in which the standard of the Training Camp has been set up.

You women of the Camp recognized, and rightly recognized, that during the war the highest service you could render was the care of the wounded and the safeguarding of the lives of the soldiers overseas. It seems to me equally clear that you can have no higher call in peace than to the care of the wounded in life's daily battles. My wish for you in the New Year is that you may have strength to "carry on," to endure without acquiescing in what is inadequate, to take full advantage of the opportunities to serve and to grow in power for service, opportunities that are present under the most disheartening conditions—to persevere in your chosen work till you are fully qualified to meet the great need that is calling for you outside the hospital walls.

\*From *The Thermometer* (published occasionally by graduates of the Vassar Training Camp).

##### Gynecology for Nurses

This subject is treated in a most concise, yet clear and direct, manner. Owing to its convenient size the volume serves well as a hand-book for the ready use of nurses on the wards and in the operating room. The many illustrations are very clear and comprehensive and help tremendously in presenting the essentials in gynecological nursing technique in a concrete way.

**Reference Hand-Book of Gynecology for Nurses.** By Catherine Macfarlane, M.D., F.A.C.S., gynecologist to the Woman's Hospital of Philadelphia. Cloth, pp. 151, with 71 illustrations, \$1.50. W. B. Saunders Company, Philadelphia, 1918.

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##### A Practical Reference Book on Chemistry and Toxicology

This book serves as a good reference book in connection with the study of solutions and *materia medica*. It gives the nurse a practical understanding of the chemical composition of various drugs, and it furnishes a valuable aid in clarifying the chemical principles involved in the study of suitable antidotes as a measure of treatment in different kinds of poisoning by drugs.

The subject is presented in a concise and comprehensive manner.

**Chemistry and Toxicology for Nurses.** By Philip Asher, Ph.G., M.D., M.S., dean and professor of chemistry at the New Orleans College of Pharmacy, New Orleans, La. Cloth, pp. 195, \$1.50. W. B. Saunders Company, Philadelphia, 1918.

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##### Red Cross Nurse Decorated With Distinguished Service Cross

"For extraordinary heroism against an armed foe" Miss Beatrice Mary MacDonald, an American Red Cross nurse assigned to the Army Nurse Corps, has been decorated with the Distinguished Service Cross by Secretary of War Baker. Miss MacDonald, whose home is New York City, is said to be the first woman to receive the highest award for bravery outside of the Congressional Medal which the government has to bestow.

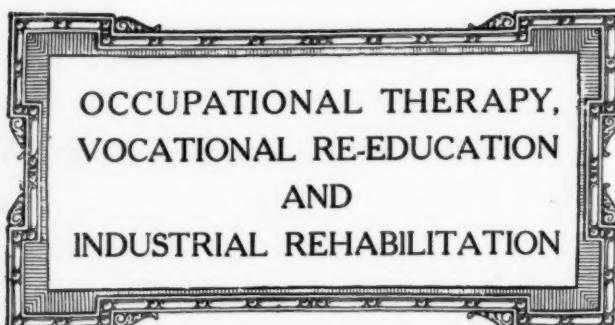
Miss MacDonald, as chief nurse of the Presbyterian Unit, which left New York in 1916, was in an evacuation hospital immediately behind the lines when the place was bombed by German aeroplanes on the night of August 17, 1917. She displayed remarkable courage during the bombardment, remaining in the operating room until a fragment of shell struck her in the face, destroying the sight of her right eye.

General Pershing, in a personal letter, commended Miss MacDonald and Miss Eva Jane Parmelle of Springfield, Mass., another nurse who remained at her post after being wounded in a German air raid. Both nurses have been recommended for the British Military Medal "for exceptional bravery," and Miss MacDonald has received the Royal Red Cross decorations from the British authorities.

Miss MacDonald was formerly office secretary to Dr. George E. Brewer of New York. He had charge of the Presbyterian Hospital unit and is now a colonel in the Army Medical Corps.

Be quiet at night. Place a towel under basins and glasses before putting them down.—Marie Robertson, R. N., in *The Nurse*.

Dimity bedspreads which have a blue stripe in them are distinctive for use in nurses' home and are easily sorted out of the hospital laundry.



Conducted by DOUGLAS C. McMURTRIE, Director Red Cross Institute for Crippled and Disabled Men and ELIZABETH G. UPHAM, Advisor in Occupational Therapy, Milwaukee-Downer College.

#### ACTIVITIES TO MEET PATIENTS' NEEDS

##### Work of Occupation Department Which Aims to Study and Solve Problem of Each Individual Patient—Affiliation with School of Nursing Valuable

BY WINIFRED BRAINERD, Director, Department of Occupation Therapy, Presbyterian Hospital, Chicago, Former Director of the Industrial Department of the Clifton Springs Sanitarium, Clifton Springs, N. Y.

The industrial department at Clifton Springs Sanitarium was opened in December, 1912. It was housed in two rooms, one in the basement of the main building and one on the second floor of the annex. The room in the annex was used for leather work and basketry. The room in the main building was used as a weaving room and contained four large looms for weaving rugs, a four-harness loom for pattern work, and two smaller looms for making table runners, scarfs, work bags, etc.

In 1914, owing to an increased demand for rooms in the annex, all of the work of the department had to be



Fig. 1. Self-forgetfulness and exercise at his workbench brought back the motor functions to this patient's left arm.

transferred to the one room in the main building. Again, in the early part of 1917, because of the need of greater space for the laboratories, the department moved, this time to the gymnasium. The gymnasium afforded room for expansion, and carpenter benches, with tools for woodworking, were added to the other equipment.

At the present time, broadly speaking, the work of the department is divided into two classes, work in the shop or garden and work in the patients' rooms. The shop work may be classified under six heads: woodworking, basketry, weaving, leather work, art work and, simple metal work. It might seem that woodworking would appeal more to men than to women, but such has not been the case. The very novelty of handling a saw instead of a bread knife, and a mallet and chisel instead of a tack hammer, seems to have a certain fascination that produces women carpenters. The projects worked out have been varied. Individual needs and preferences have



Fig. 2. Busy brains and hands combined to fashion these creatures in the industrial department of Clifton Springs Sanitarium.

governed the choice of project in each case. A man made a sewing screen for his wife, stitching the lining on a sewing machine in a way that he said Mrs. C. would never believe. Women have made taborets, book shelves, swifts to wind yarn, magazine racks, plant sticks, etc. Toys for children have been popular, animals on wheels, kites, jumping jacks, bows and arrows, etc. The shop has been a hospital for golf sticks, tennis rackets, trunk trays, shoe heels, and even for jewelry.

This spring the director of the shop was able to buy a load of slabs from a near-by farmer, and the possibilities in those slabs have been almost endless. By the use of enamel cloth, tin cans, and test tubes, window boxes, fern dishes, bud vases and all sorts of flower holders have been made. Enough money has been realized from the sale of these articles to purchase the tools with which to work the shop garden and to buy the seeds the shop needed to furnish.

The scope of the room work has been considerably enlarged. Again, the one aim has been to meet individual needs. On one occasion the occupational director was asked to visit a room patient of the blasé bored type, to whom nothing reasonable could be expected to appeal.

She met the reception she anticipated. Mrs. X. was not interested. Finally she was asked if she had no relative or friend for whom she would like to make something. Yes, she did have two small nephews, but nothing short of a steam engine would appeal to them. The story of how the steam engine was made in the patient's own room from a tin can, a knitting needle, some bicycle nipples, tin, wood, screws and paint is a matter of history. The at-

This kind of basketry is especially nice for work bag bottoms, using colored silks or ribbon for the tops of the bags and twisting the draw strings from the cotton or silk used to make the bottom.

Thin woodworking is a form of occupation that has appealed to many of the room patients. For this work a simple equipment, consisting of a small block plane, a coping saw, try square, sloyd knife, saw board, clamp,



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Thousands of wounded boys who have made physical sacrifices on the battlefields are learning to "come back" at the Walter Reed General Hospital, Takoma Park, D. C. Among many other activities, they publish a news-entirely forgotten wounds and battlefields in the stress of preparing the forthcoming issue. Next month Major B. T. Baldwin, director of occupational therapy at the Walter Reed General Hospital, will tell how these boys are helped to make "coming back" a

entirely forgotten wounds and battlefields in the stress of preparing the forthcoming issue. Next month Major B. T. Baldwin, director of occupational therapy at the Walter Reed General Hospital, will tell how these boys are helped to make "coming back" a success.

tending physician's comment was that, during the time Mrs. X. worked on the engine, she lived the sanest life he had ever known her to live.

What is known as "tapestry basketry" has been a very satisfactory form of work for bed patients, because so few materials are needed and because they can be easily managed in bed. Only a needle, some featherbone and mercerized cotton or silk are necessary. The work is done in the same way that baskets are made from raffia over reed, the featherbone replacing the reed and mercerized cotton or silk replacing the raffia. Four strands of cotton or silk make a convenient number with which to work.

hammer, brads, etc. is necessary. The wood used is clear-grained basswood, one-eighth inch to one-fourth inch in thickness, and cut in uniform lengths of 4 inches, 6 inches and 8 inches. One of the most useful models patients have made is a watchstand, by which an ordinary watch may be converted into a bedside clock. Picture puzzles, toys, cut-up maps, etc., are made with the same equipment. One man, a Presbyterian minister, whittled out and painted a totem pole that looked as if it might have come from Alaska. He was very proud of it and used it as a mural decoration in his room.

As another example of meeting an individual need, a

## THE MODERN HOSPITAL

work bench fastened to the foot of an iron bedstead may be mentioned. The bench consisted of pieces of board, clamped together to support the top, and was as firm and solid as a regular work bench. It was fitted with a vise and the ordinary tools for woodworking plane, square, saw, hammer, marking gauge, etc. The man who used it was a physician convalescing from a serious head operation—parietal decompression. He had complete sensory loss in the left arm and hand, and, although the motor functions were retained, he had, on account of the sensory disturbance, practically abandoned the use of the extremity. He had some difficulty in walking and was very apprehensive lest he should completely lose the use of the left leg. He started with a few minutes work each day, gradually increasing the amount until his interest in what he was doing banished the old dread, and now he walks four miles without difficulty. As a result of his exercise at his bench, he uses the left hand much more freely than formerly.

Water-color work has been a good form of occupation for those who could not come to the shop. Fitting up a water color kit that has a bit of the real thing about it is not a difficult matter. A block clamped to the upper side of the bedside table holds the water pan and paint box in place even when the table is tilted to an angle to accommodate the worker. Birthday cards, Easter cards, Christmas cards and New Year's cards have been tinted very creditably. One patient sold six dollars' worth at the nurses' bazaar. It is a real satisfaction to do something that has market value.

The shop maintains a traveling library of art catalogues, garden catalogues, magazines, picture puzzles, conundrums, etc., which it circulates among the room patients. A typewriter, recently acquired, has proved to be a valuable adjunct. By means of carbon copies the typewriter makes it possible to pass along choice bits from the classics and current literature, information about flowers and birds, etc., and sometimes, when it is advisable, a hint about bracing up or "playing the game." Many a patient has said that the material he has collected in this way will be added to a scrapbook he already possesses or will form the nucleus of a scrapbook to be.

Interest in things out of doors has been stimulated by bringing to the room-patients the spring buds and flowers as fast as they come along. The skunk cabbage, the first flower of spring, is generally unknown and creates not a little amusement. It is served, if you please, on a slab "plank"—a block of slab with a large water-tight hole bored in the top. Enough earth to anchor the plant is put in the hole, and a single purple spathe, guarded by a roll of green leaves and ringed about with moss, the whole surrounded by the gray bark of the slab, makes an artistic combination hard to beat. The other flowers have been taken in turn—bloodroot, trillium, wild ginger, bellwort, foam flower—and now jack-in-the pulpit is preaching his message of cheer. Patients who are to be here for some time have real window boxes made from slabs, into which the flowers are transplanted and bloom in veritable tangles.

The social life of the department has not been entirely neglected. The most elaborate affair was a tea party early in April, to which each worker in the shop brought as many guests as he wished. In this way, each one felt partly responsible for the success of the venture. The shop was decorated with flags and flowers, and a victrola furnished the music. Patients served refreshments to about seventy-five guests, and their one query was, "When may we do it again?"

The industrial department is closely affiliated with the

school of nursing. Each nurse in training serves a term of at least four weeks in the shop. She masters the fundamental principles of five kinds of work, which she may choose. She compiles a notebook which contains outlines of the work she has done, notes on the therapeutic value of occupation, a bibliography of books and articles on occupation therapy, a bibliography of books on handicraft, and a list of tools, appliances, and supplies for hand work and where they may be obtained. She starts a scrap book of clippings, pictures, etc., that might be helpful in this work. She has actual experience in teaching the patients. Her teaching is carefully observed, and suggestions are made to improve and strengthen it. At the end of her term in the shop, she takes an examination in occupation therapy and receives a mark for her work, as she does for any other course.

The department has a vision. A separate building—suited to the purpose, adequate to the needs of the work, and artistic—a fireplace, a woodpile and an axe, music, and a garden adjacent, plus the regular workshops, will make up the plant. Other lines of work, such as pottery, printing, bookbindery, photography, etc., can then be added to the present activities.

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#### The American Journal of Care for Cripples Becomes a Monthly

The *American Journal of Care for Cripples*, which is the only special periodical in English on provision for the disabled, became a monthly with its January issue, according to announcement by its editor, Douglas C. McMurtrie. Although dealing extensively with the rehabilitation of the invalidated soldier, the *Journal* is not a war product, as it is entering upon its eighth volume. It will contain in the future the studies, translations, and abstracts produced by the research department of the Red Cross Institute for Crippled and Disabled Men, which material has hitherto appeared in a special series of publications. The *Journal* also continues as the official organ of the Federation of Associations for Cripples.—*New York Evening Post*, February 22, 1919.

#### Victory

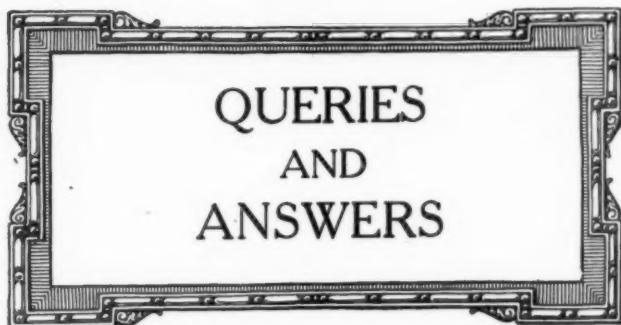
He was a "blue baby"—and there wasn't much chance for him, the doctor said. "Nurse White" had long been promised that hers was to be the privilege of naming him, and she had a name carefully selected which would meet any emergency. "But it won't make any difference what you name him now," sighed the weary mother.

But "Nurse White" only smiled cheerily. "Oh, yes, it will," she said. "I am going to name him so that he just *must* live, and grow strong and well." Then, with the lightest touch on the little head, "I name you Victor," she pronounced, and, smiling again into the mother's eyes, "He will be a *victor*—he will *live*!"

And the best part of the story is that she was right.—*New York Nursery and Child's Hospital*.

#### Make an Asset of Your Switchboard

The importance of the position of the telephone operator cannot be magnified too highly; it is as important as that of the receiving clerk if not more so, for its duties are very complicated. The operator must give out authoritative information only; she must be prompt and efficient; consequently her hours should not be long, so that she may always be alert and in a pleasant frame of mind. Do not be satisfied with the ordinary service; get an experienced operator.



#### Placing Hospital Superintendents Under Bond

To the Editor of THE MODERN HOSPITAL:

Is it the custom of hospitals to bond their superintendents? I am in charge of a small institution of 100 beds and a training school of 30 pupils, and this subject is under discussion.

SUPERINTENDENT NEW YORK HOSPITAL

It can scarcely be said to be *customary* for hospitals to bond their superintendents. Where financial responsibility rests on the superintendent, however, the practice is a very desirable one; in fact, many superintendents insist on being bonded for their own protection as well as for that of the institution with which they are connected.

#### Location of Laboratories and X-Ray Apparatus

To the Editor of THE MODERN HOSPITAL:

Do you think it best to locate laboratories and x-ray apparatus in the basement?

A TECHNICIAN

It is immaterial whether x-ray apparatus or laboratories are placed in the basement, provided they are placed so as to be accessible and not merely in an out-of-the-way corner which is chosen simply because it can not be used for any other purpose.

#### Inclines Versus Stairs

To the Editor of THE MODERN HOSPITAL:

Are inclines superior to stairs, especially if an elevator is not contemplated?

AN EASTERN HOSPITAL OFFICIAL

If the architecture of the building will lend itself to the use of inclines, they are superior to stairs, provided a grade of from one to six or, at the most, one to ten can be obtained. Any steeper incline than the latter is absolutely impractical.

#### Caring for Hospital Employees in Times of Illness

To the Editor of THE MODERN HOSPITAL:

1. What are the duties of a hospital in caring for the officers of the institution when ill? Also, the employees?
2. Are they allowed full pay while off duty?
3. Is it customary to make a reduction of hospital rates to members of a hospital board?

A SUPERINTENDENT

1. It is difficult to answer this question in the abstract. It is customary in most hospitals to care for the officers and domestics and their families free of charge. Some institutions, however, draw a very definite line on this subject: members of the staff are cared for without charge—likewise, domestics who have been in service over three months; members of boards of trustees pay full rates for their families and themselves, and members of the families of officers are charged like other patients. It would be necessary to know something about the financial status of the hospital and the actual relation of the officer or board member to it before attempting to prescribe the duties of a hospital toward these persons.

2. Sick leave should be allowed employees who have served the institution for a year or longer; it is customary to continue pay for a period which varies with the previous period of service, but not to continue indefinitely. Some hospitals make a reduction of 10 percent to physicians, ministers, and board members. As indicated in answer to question one above, other hospitals make no special rates.

#### Vacations for Hospital Employees

To the Editor of THE MODERN HOSPITAL:

What is the usual length of vacation with pay allowed to bookkeeper, bacteriologist, and dietitian?

A HOSPITAL SUPERINTENDENT

To bookkeepers, bacteriologists, dietitians, and others holding responsible positions, who many times work long hours, holidays and Sundays should be allowed, at least, two weeks' vacation with pay the first year, and three weeks to one month thereafter. Hospital service is continuous; the doors are never closed, and therefore its employees are compelled to give more time and closer attention to duties than in mercantile life. A good vacation with pay means better service.

#### BOOKS RECEIVED FOR REVIEW

**Instincts in Industry.** A Study of Working Class Psychology. By Ordway Tead. Cloth, pp. 222, \$1.40. Houghton Mifflin Company, Boston, 1918.

**The Nurse's Service Digest.** A Manual of Nursing. By Laurence Humphrey, M.A., M.D., M.R.C.P., M.R.C.S., teacher of pathology and examiner in medicine, University of Cambridge, and W. Myron Reynolds, M.D. Cloth, pp. 397, with 86 illustrations, \$1.50. George Sully & Co., New York, 1919.

**The Human Machine and Industrial Efficiency.** By Frederic S. Lee, Ph.D., LL.D., Dalton professor of physiology in Columbia University, president of the American Physiological Society, and consulting physiologist to the United States Public Health Service. Cloth, pp. 104, illustrated, \$1.10. Longmans, Green and Company, New York, 1918.

**The Disabled Soldier.** By Douglas C. McMurtrie, director Red Cross Institute for Crippled and Disabled Men, and president Federation of Associations for Cripples. With an introduction by Jeremiah Milbank, vice-chairman, committee of direction, Red Cross Institute for Crippled and Disabled Men. Cloth, pp. 232, illustrated, \$2. The Macmillan Company, New York, 1919.

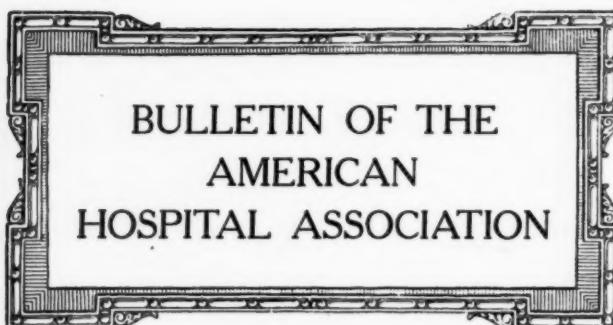
**Forty-fifth Annual Session of National Conference of Social Work.** Proceedings of the National Conference of Social Work, formerly National Conference of Charities and Corrections, Kansas City, Mo., 1918. Cloth, pp. 693, \$2.50. Rogers & Hall Co., Chicago, 1918.

**Chemistry and Toxicology for Nurses.** By Philip Asher, Ph.G., M.D., M.S., dean and professor of chemistry at the New Orleans College of Pharmacy, New Orleans, La. Cloth, pp. 195, \$1.50. W. B. Saunders Company, Philadelphia, 1918.

**Roentgenotherapy.** By Albert Franklin Tyler, B.Sc., M.D., Professor of Clinical Roentgenology John A. Creighton Medical College; Attending Roentgenologist St. Joseph's Hospital, Omaha, Neb. Cloth, pp. 156, 111 illustrations, \$2.50. C. V. Mosby Company, St. Louis, 1918.

**Quarterly Medical Clinics.** A series of Consecutive Clinical Demonstrations and Lectures. By Frank Smithies, M.D., F.A.C.P., Associate Professor of Medicine, School of Medicine, University of Illinois; Medical Consultant to U. S. Marine Hospital; Gastro-enterologist to Augustana Hospital, Chicago. Paper, pp. 188, 42 illustrations, \$1.50. Medicine and Surgery Publishing Company, St. Louis, 1919.

**Hospital Accounting and Statistics.** Compiled and arranged by William V. S. Thorne, Treasurer Presbyterian Hospital, New York City; Chairman of the Executive Committee of the Woman's Hospital in the State of New York; Member of Board of Directors of the Manhattan Maternity and Dispensary. Cloth, pp. 119, with illustrations, \$1.50. E. P. Dutton & Co., New York, 1918.



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#### Institutional Membership

##### PLEASE SEND IN YOUR APPLICATION

Since publication of the last bulletin of the association, applications for institutional membership have been received from the following, making eighty-four applications to date: All Saints Hospital, Fort Worth, Texas; Broad Street Hospital, Oneida, N. Y.; Binghamton Hospital, Binghamton, N. Y.; Children's Hospital, Philadelphia, Pa.; Columbia Hospital, Milwaukee, Wis.; Children's Free Hospital, Detroit, Mich.; Elkins City Hospital, Elkins, W. Va.; Hackley Hospital, Muskegon, Mich.; Hahnemann Hospital, New York City; Kensington Hospital for Women, Philadelphia, Pa.; City Hospital, Louisville, Ky.; Newell & Newell Sanitarium, Chattanooga, Tenn.; Olean General Hospital, Olean, N. Y.; Oil City Hospital, Oil City, Pa.; Presbyterian Hospital, New York City; Rochester Homeopathic Hospital, Rochester, N. Y.; St. Luke's Hospital, San Francisco, Cal.; Woman's Hospital, New York City; York Hospital, York, Pa.

Owing to the inability of Dr. John M. Peters to serve as chairman of the membership committee, it has not been possible to secure committee action on the applications. At the request of the president, Dr. S. S. Goldwater has agreed to act as chairman of the committee. The applications will be placed in the hands of the membership committee immediately and, pending the printing of the formal certificates, temporary certificates will be forwarded to the hospitals accepted by the membership committee as institutional members.

#### Government Control of Telephones

The communication to the hospitals concerning telephone rates, charges, and discounts, published in the February bulletin of the association, has brought numerous replies. Replies have been received from hospitals in twenty-two states. The letter was not sent to all of the hospitals in the association. The secretary would be glad to have information from other hospitals on this important question.

The information received so far, at least warrants a request for a hearing on the question of standardization of telephone service to hospitals. The secretary has been informed by the solicitor of the Postoffice Department that correspondence on this subject has been referred to Mr. Union N. Bethell, chairman, U. S. Telegraph and Telephone Operating Board, 195 Broadway, New York

City, for consideration and such recommendation as he may have to make in the premises—also, that request for hearing on the matter and any other communications on the subject from this office be addressed to him. If request for hearing is made and granted, the hospitals will be informed immediately.

#### New State Hospital Association

The hospitals of Illinois have formed an organization under the name of "The Illinois Hospital Association." The purpose is to promote the general welfare of the sick. Rules and regulations were adopted February 7, 1919. The officers of the association are: President, M. L. Harris, M.D., Polyclinic Hospital, Chicago; vice-president, Wm. L. Noble, M.D., West Side Hospital, Chicago; secretary, E. T. Olsen, M.D., Englewood Hospital, Chicago; and treasurer, C. O. Young, Washington Park Hospital, Chicago. The association is actively interested in certain legislative proposals now before the Illinois legislature.

#### Special Letter on Bulletins of the Association

The following letter has been sent to officers, committee members, and chairmen of the sections of the association. Opinions on the subject matter are desired from members of the association. Please write the secretary your frank opinions and criticisms.

"I want your advice about the bulletin of the American Hospital Association. In general, I would like to know what you think of the bulletins as published in *THE MODERN HOSPITAL*. Perhaps I can indicate what I have in my mind better by a series of questions, which I would be glad to have you answer as soon as possible. Please write me a letter, and be entirely frank in your criticisms and advice.

"1. Do the bulletins contain the right kind of data or information?

"2. Are the bulletins gotten up as they should be? Are they too long? Too short?

"3. Should the bulletins be kept within narrow limits—that is, confined almost exclusively to proper hospital subjects, or should they deal with public health matters in general?

"4. Should the same type of bulletin be prepared for *THE MODERN HOSPITAL*, *Southern Hospital Record*, and *Hospital Management*?

"5. Should we endeavor to have bulletins especially prepared for the medical and nursing journals of which there are quite a number?

"6. Should the American Hospital Association seek eventually to own or control an official organ?

"One difficulty I find in preparing the bulletins for the association is that *THE MODERN HOSPITAL* contains each month an enormous amount of general and special information of interest to hospitals. It contains regular articles, special bulletins from the various departments, and other public health organizations; and it contains practical hints and advice to hospital superintendents. Obviously our bulletin should not seek to duplicate such items. What, then, should the regular bulletins of the American Hospital Association contain? Any advice or assistance you can give will be appreciated."

#### Legislation

The March bulletin of the association contained a review of the public health legislation recommended by the governors of thirty-four states in their messages to the legislature—also, a statement of the important specific recommendations made. Since then a bulletin has been sent by the legislative committee to members of the association and to hospitals in the various states, calling their attention to these matters. For the benefit of the members of the association the form letter is contained in this bulletin, with the exception of the paragraph referring to the specific recommendations.

"The legislature in your state is in session. The governor's message to the legislature has been read and published. It contains important public health suggestions

and recommendations. Hospitals and dispensaries should be much interested and concerned in these recommendations.

"The legislative committee of the American Hospital Association urges your active interest in the governor's recommendations and in important public health measures now before your legislature. . . .

"Hospitals and dispensaries are important public health agencies. They should be important factors in shaping public health legislative policies. Your interest at this time may vitally affect the public health of your state. At the same time, the interests of the hospitals and dispensaries must also be considered and protected. Do not wait until the legislature has adjourned. The time to act is now. Do not hesitate to call upon this legislative committee if it can be of assistance."

#### Hospitals and the Federal Income Tax

The attention of the hospitals is called to the Federal Income Tax law, which requires every employer to report payments of salary, rent, or board furnished to any of its employees where the total of such payments to any individual amounts to \$1,000 or more during the calendar year. If board and lodging is furnished employees and is valued at \$400 per year, the hospital must report amounts paid to any employee whose salary is \$600 or more in addition to the board and lodging during the year January 1 to December 31, 1918. Information must be reported to the United States Internal Revenue Department on Form 1096, revised February, 1919.

The form states that this return must be made on or before March 15, 1919, but it is understood that the department has granted an extension to May 15. Failure to make the return is subject to penalty. Hospitals are urged to give this matter careful attention.

#### Federal Appropriations to Provide Hospital and Sanitarium Facilities for Discharged Sick and Disabled Soldiers, Sailors and Marines

On March 1, during the closing hours of the sessions of the sixty-fifth Congress, the conference report on the Senate amendments to House Bill No. 13026 to authorize the Secretary of the Treasury to provide hospital and sanitarium facilities for discharged sick and disabled soldiers, sailors, and marines was adopted. In all, \$9,050,000 was appropriated. The patients to be admitted to the hospitals provided under this act are not limited to soldiers and sailors, but include nurses (male and female), patients of the War Risk Insurance Bureau, civilian employees entitled to treatment under the United States Employees Compensation Act, and many others.

Hospitals with such other buildings and land as may be required in several military camps located in different parts of the country are transferred to the Public Health Service. The act authorizes the purchase and lease of hospitals and equipment in several states and authorizes the leasing of any existing hospitals or sanitaria for immediate use, as well as the construction of such new hospitals or sanitaria as may be necessary.

Under the provisions of this act, the Federal Public Health Service may proceed with a most comprehensive hospital program. Members of the association are urged to familiarize themselves with the provisions of this act. The secretary would be glad to furnish members with copies of the act upon request.

#### 1919 Convention

##### TENTATIVE PROGRAM FOR THE OUT-PATIENT SECTION— MICHAEL M. DAVIS, JR., BOSTON, CHAIRMAN

The committee on dispensary work, together with the officers of the Out-Patient Section, held a meeting in New

York City at the end of January and discussed, among other matters, the organization of a service bureau within the American Hospital Association, such a bureau to provide advice and consultative service in the establishment, organization, and management of dispensaries, and in investigation and advice upon the community relations of hospitals. It was the general feeling that there was a demand from various institutions in different parts of the country for information and advice concerning out-patient clinics, and also for investigation concerning the needs of a community for various types of hospital service, the extent of the need for clinic service and the relation of hospitals and dispensaries to other organizations, such as health departments, social service, and visiting nursing. It was the plan of the committee to work out some definite suggestions by which such advisory and consultative service might be provided for the members of the association and others, and to lay such a plan before the officers and trustees.

The meeting of the committee on dispensary work, with the officers of the Out-Patient Section, developed suggestions for a program at the next meeting of the convention. It was believed that two sectional meetings might well be devoted to the general subject of dispensary work, the following topics being suggested:

*First Session:* (1) Dispensary work in France, Italy and Belgium under the auspices of the Red Cross and other American organizations; (2) the study of dispensaries in New York City now under way under the auspices of the Rockefeller Foundation.

*Second Session:* (1) Pay clinics, their value to the hospital, and their relation to the medical profession (presented in two papers—one dealing with the general aspects of the topic, and the other, with the recent development of pay clinics in a number of cities).

Each section of the association is allowed one paper at a general meeting. The subject of the relation of the dispensary to health insurance was suggested as timely and suitable for a paper to be presented at a general session, at which the subject of health insurance would doubtless be discussed from many angles.

#### THE GENERAL PLAN OF MEETINGS OF SECTIONS OF THE AMERICAN HOSPITAL ASSOCIATION

It was the sense of the committee that at meetings of the sections there should be normally two papers, not exceeding twenty minutes in length, and, if there is an additional paper, the papers should be cut to fifteen minutes each. One person should be announced on the program as opening the discussion of each paper, the remainder of the time to be left for informal discussion.

The committee suggests that the meetings of the Out-Patient Section should not take place at the same time as the meetings of the Social Service or Administrative Sections, believing that a combination with the Nursing, Dietetic or Construction sections, for instance, would mean that fewer persons would wish to attend two section meetings at the same time.

#### SUGGESTION FROM SECTION ON HOSPITAL CONSTRUCTION— DR. GEORGE O'HANLON, NEW YORK, CHAIRMAN

The Section on Hospital Construction of the American Hospital Association considers it advisable to urge upon those hospitals which have building improvements or new buildings in contemplation, the desirability of taking the initial steps at this time. The work involved in deciding all the details of a hospital building, if the details receive the consideration required to approach perfectly satisfactory results, will take much more time than is apt to be

## THE MODERN HOSPITAL

foreseen by those who have not been through a building operation.

Even if the hospital authorities have a quite definite understanding of their requirements, and the architect, or engineer, is entirely familiar with hospital practice, as should be the case, much discussion will be found inevitable before a definite scheme can be arrived at which incorporates as many of the needs of the hospital as possible and, at the same time, comes within the limit of the funds available. This discussion can, and usually does, run into a matter of two or three months, or more, following which from two to six months, depending upon the extent of the work, will be consumed in preparing adequate drawings and other data required for contractors' estimates.

The uncertainty as to the cost of building has held many much needed hospital projects in abeyance. The wisdom of delaying these projects beyond this summer is questionable. While it is true that a higher scale of building costs prevails, it is relative to a higher scale of the cost of labor and all commodities and must prevail for a number of years, until the waste of war has been made up. The best informed opinion is that the maximum possible recession in building costs will be 20 percent in five years, a considerable part of which is expected this year, before the amount of building becomes large, and before the demand for materials for foreign reconstruction has become a factor.

The Federal government, in a well organized movement, is urging the public to resume building, and the result of this movement is bound to stimulate building activity, some builders being compelled by patriotic motives, but more of them by the fear of having to build in a time of abnormal activity.

This year is likely to develop as the best of several years to come in which to place contracts, and immediate preparation is necessary to be in the position to place contracts this year. In the event that new factors appear to make it advisable to hold back the placing of contracts, it is still advisable, as the committee recommends, to have the preliminary work begun at once, so that any opportunity in the building market may be taken advantage of.

### Hospital Positions Wanted

The association has been requested to assist the following applicants in finding hospital positions. Information as to applicants will be forwarded by the secretary on request.

The chief of the laboratory service in a United States General Hospital, graduate in medicine, commissioned in the Medical Corps as captain, desires to practice medicine in Seattle, Wash., with hospital connections; especially desires part-time laboratory service in hospital on salary basis of \$1,500 to \$2,000 annually.

Experienced hospital superintendent, commissioned as captain, now on duty in France with Red Cross Bureau of Hospital Administration, expects soon to be released from service and desires position as hospital superintendent.

Experienced hospital superintendent, graduate physician, just released from military position, desires position as hospital superintendent; middle-aged man, excellent recommendations.

### 1918 Convention Souvenir Programs

The secretary has about one hundred copies of the 1918 Atlantic City Convention program. Members desiring copies as souvenirs can obtain the same upon written request.

### The Campaign Against Venereal Disease

The American Hospital Association recently sent the following letter to hospitals throughout the country, and it is hoped that all hospitals will cooperate heartily in this important campaign:

*To the Hospitals of the United States:*

The American Hospital Association asks your cooperation in one of the great national programs arising out of the War. At the convention of the association held in Atlantic City during September, 1918, it was unanimously voted:

"That the American Hospital Association heartily endorses the program of the War Department for the control and treatment of venereal disease, and that the hospitals of the country be urged to cooperate with this program in every way, and particularly by developing, or when necessary establishing, clinics for treating venereal disease, and by opening their wards to patients with these diseases who require bed care."

The War Department, the United States Public Health Service, the Council of National Defense, and the War Camp Community Service jointly undertook a great national campaign to control, treat and prevent venereal disease. It has been demonstrated that syphilis and gonorrhea are the most serious causes of illness and inefficiency in the army. It has been proved by experience at all the army camps that the sources of these infections lie not within the army itself, but in civilian life, and it has therefore become apparent that the civilian communities and civilian agencies must take aggressive steps to control these diseases. Five-sixths of all the syphilis and gonorrhea treated in the army was contracted prior to enlistment. Let us develop facilities to care for the men and women at present going about untreated or quack-treated and, therefore, acting as "carriers."

Thirteen of the state boards of health have organized bureaus for the prevention and control of venereal diseases. Thirty additional states, making a total of forty-three, have made venereal diseases reportable. This leaves only five states and one territory, the District of Columbia, within the territorial limits of the United States in which provision has not been made for the reporting of venereal diseases. It is expected that these states and the territory will soon make venereal diseases reportable.

In forty-two of the states medical officers of the Public Health Service, either the joint appointees of the state and the Service, or commissioned officers of the Service, have been detailed for the work of venereal disease control. The work which is being done includes public education, the enforcement of laws which provide for the control of infected persons, and, in particular, the provision of adequate facilities for diagnosis and treatment of syphilis and gonorrhea.

In this, the hospitals and their out-patient departments or dispensaries must play a large part. The great bulk of cases of these diseases are ambulatory. It has been demonstrated that well-organized out-patient clinics for syphilis and gonorrhea are absolutely necessary steps in any general attempt to diminish or control these diseases. The resources of private medicine are now universally recognized as inadequate in this respect.

A communication from the office of the Surgeon-General read at the convention of the American Hospital Association, states:

"The experience of the Army, the Navy, the Commission on Training Camp Activities, and the Public Health Service during the past year has clearly indicated the urgent necessity for our hospitals throughout the country opening their doors to venereal disease patients and doing everything possible to facilitate the extension of clinic and follow-up service to ambulatory cases. There is now no doubt that the American public will support fully the campaign for the control and gradual eradication of venereal diseases."

The campaign against syphilis and gonorrhea is not primarily a moral issue, but an issue of public health and national efficiency. The need existed before the War and

will continue after it, but the War emphasized more than ever how essential it is to maintain the physical condition of our population at its best, and to combat diseases which sap our national stamina. The time when the subject of venereal disease had to be approached in fear, or be covered up by silence, has passed away.

In behalf of the American Hospital Association, each hospital board of trustees is asked to give careful consideration to this matter and to take whatever steps are practicable to see that the hospital plays its full part within its community in this good fight.

Existing clinics which your hospital may already have, which receive syphilis and gonorrhea, need in many cases to be enlarged, and always should be coordinated with the local and state public health authorities. Where no such clinics exist, out-patient clinics for the diagnosis and treatment of syphilis and gonorrhea should be established. A number of hospitals have conducted such clinics without any net expense for maintenance through charging fees covering the cost. This policy is quite compatible with a large amount of free or charitable work. Several states have appropriated money for the support of venereal clinics, and subsidized them when they come up to officially recognized standards of efficiency. The Federal government, by the Chamberlain-Kahn Act, has appropriated one million dollars for distribution among the states for this purpose.

The American Hospital Association will gladly furnish information when desired as to details concerning the establishment or management of clinics or the policies which various hospitals have successfully adopted in the use of beds for venereal cases. The undersigned may be addressed for information in this regard.

Respectfully yours,

A. R. WARNER, President,

Address: Lakeside Hospital, Cleveland, O.

MICHAEL M. DAVIS, JR.,

Chairman Committee on Dispensary Work,

Address: 25 Bennet Street, Boston, Mass.

#### The Gospel of Sanitation

"The greatest word in the vocabulary of the professional medical officer is sanitation," says Surgeon-General Merritt W. Ireland, writing in the *Red Cross Magazine*. "Sanitation means cleanliness. And, if order is heaven's first wish for the world, cleanliness must certainly be its second. In fact, if I were called upon to outline heaven's program for humanity, I would place cleanliness first of all."

"That the world may be clean—that is the way I view the great task of the Red Cross workers of the world—clean physically, clean mentally, and clean morally. I can think of no more inspiring or practical gospel for humanity than that. And the Red Cross is its evangelist."

"If such service is needed by the world in general, how much more is it needed by an army in action! It is a well-known fact that our greatest enemy in this war was, not the Germans, but dirt. Never before have soldiers had to fight, so much exposed to dirt and filth. And yet never has a war been won with so little suffering and death caused directly by this enveloping contagion. For this achievement—and there has been no greater in the late war in Europe—we have to thank most of all the American Red Cross."

The American Army Hospital at Beaune, a beautiful village in the Cote d'Or region, replaces a small hospital built by the Duke of Burgundy in 1443. It covers a square mile of territory and has six hundred buildings of a permanent type, with accommodations for almost two thousand five hundred patients.

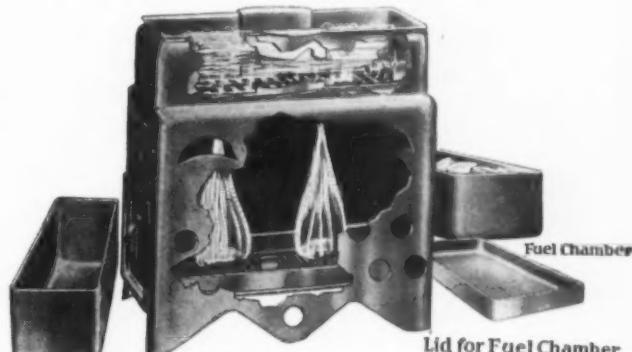
## NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.  
GEO. W. WALLERICH, Associate Editor.

Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast Avenue, Oak Park, Illinois.

#### Sterilizer for Hypodermic Needles

An ingeniously constructed little apparatus, known as the Goss-Marshall portable sterilizer, is now being offered to the profession and nurses at the supply houses. The device is very small, small enough to be carried in the nurses' bag or even in the coat-pocket, and is so con-



Lid for Sterilizing Chamber

Goss-Marshall portable needle sterilizer

structed that nothing can get out of order, because practically every part is stamped from a single piece of metal.

The process of sterilization is as follows: The needles are placed on a rack fitting into the upper chamber, the chamber is filled with water and two 5-grain hexamethylene tetramine tablets are placed on the grate, a match is then applied, and sterilization begins almost at once.

The cost of the tablets is small and they leave no soot or ashes.

#### Continuous Empyema Drainage Apparatus

A new method of continuous drainage for empyema has recently been described in *Surgery, Gynecology and Obstetrics*, and we believe a description of the apparatus used for this purpose will be of interest to our readers.

In attempting to perfect a method of continuous drainage in cases of empyema and, at the same time, exclude atmospheric pressure and secondary infections, Dr. H. B. Philips, Gouverneur Hospital, New York City, has devised a special canula which is practically non-obstructable and with which one can drain the pleura through an intercostal space into an air-tight receptacle. Special provision is made for the attachment of a suction pump and a negative pressure manometer, as shown in Fig. 2. This makes it possible to maintain any desired negative pressure in the pleural sac while draining it.

## THE MODERN HOSPITAL

The doctor states that control over the negative pressure throughout the treatment insures against primary collapse of the lung and its coincident grave dangers. It

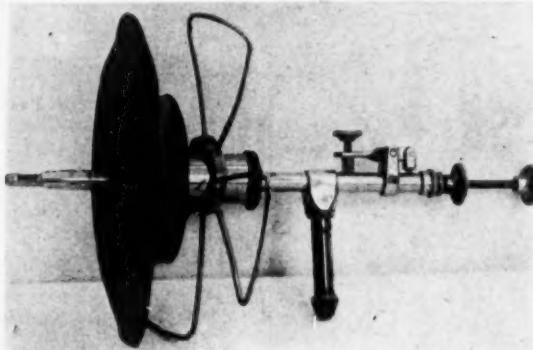


Fig. 1. Philips empyema drainage apparatus.

also affords a means of keeping the lung expanded automatically, thus promoting early adhesions between the pleura and preventing the formation of a dead space. The non-obstructable canula, which is a trocar canula convertible into a canula with a hidden curette, assures ample drainage and obviates rib-resection or other operative procedures. With this method, the original dressing is the only one, so that secondary infection from extraneous sources is practically impossible. The mussy, obnoxious



Fig. 2. Philips empyema drainage apparatus in use.

dressings are entirely done away with, as all the pus accumulates in the receptacle provided for the purpose. Dr. Philips claims that the entire procedure tends to shorten the duration of the treatment and affords a method which is scientific, sanitary and simple.

The apparatus consists essentially of four parts: (1) a special canula with a suction cup to hold it to the chest-wall; (2) an air-tight receptacle; (3) a negative pressure manometer; (4) a suction pump. These parts are connected by heavy walled rubber tubing, so as to make an absolutely air-tight system when connected to the pleural sac. The special canula is so constructed as to be used as a trocar canula for the thoracotomy, after which, the canula, being left in the situ, the trocar portion can be converted into a curette and used to cleanse the canula, when necessary, without removing it from the chest-wall, (see Fig. 2). This change from a trocar to a curette can be accomplished without any leakage of air through the canula. The canula is held tight to the chest-wall with a rubber suction cup, through which it projects into the thorax sufficiently far to have the orifice of the canula flush with the parietal pleura. This is to preclude any

possibility of traumatizing the lung or visceral pleura with the rigid metal canula. The canula is connected by heavy rubber tubing to the receptacle, in this case a glass bottle, with a two-hole rubber stopper. An indicator is suspended at the orifice of the inlet into the bottle, and, if the canula is not obstructed, it will move with every act of respiration. Should the indicator be immobile, it would mean that the curette should be used and the canula cleaned. By means of rubber tubing, the receptacle is connected to a negative pressure manometer and a suction pump, which are both detachable.

### Roentgenographic Head-Rest

This head-rest was designed by Dr. Bundy Allen of Iowa City, Iowa, primarily to give the exact angle for roentgenographing the accessory sinuses of the head. The

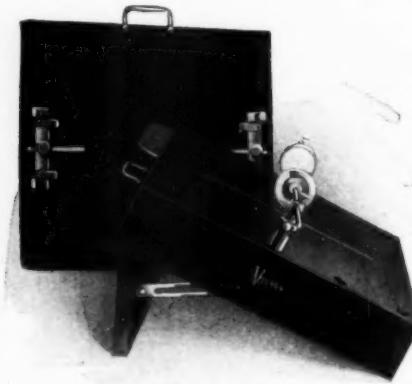


Fig. 1. Victor-Allen roentgenographic head-rest

apparatus has the proper angle for making posterior-anterior roentgenograms of the head, showing frontal sinuses, antra, orbits, anterior ethmoid cells, and nasal cavities. Figure 2 shows how the angle position serves to isolate the mastoid for a roentgenogram, thus eliminating the confusion so often experienced in reading roentgenograms in which two mastoids appear overlapping. By readjusting the head-rest parallel with the table, the correct position is obtained for the stereoscopic lateral view of the head, showing the depth of the frontal sinus sphenoid, posterior ethmoids, and sella turcica. All of these exposures may be made straight or stereoscopically.

While this head-rest was designed primarily for roentgenography of the head, it can also be used for practically every joint in the body, either straight or stereoscopically.

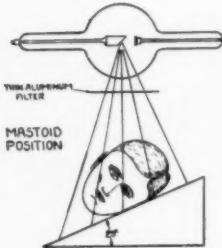


Fig. 2 (to left). Head in position for taking roentgenogram of the mastoids

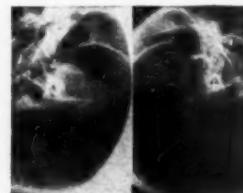


Fig. 3 (to right). Stereoscopic roentgenogram of the head

The apparatus can be used on an ordinary table or a roentgen table, the only requirements being the accommodation of the patient in horizontal position to admit the use of the tube stand alongside.